Heronhill - for all your Toshiba requirements

TOSHIBA

FILE NO. A90-0336

SERVICE MANUAL

AIR-CONDITIONER

SPLIT TYPE, HEAT PUMP

BUILT-IN DUCT TYPE
RAV-104SBH-PE
RAV-164BH-PE/164AH-PE
RAV-264BH-PE/264AH-PE
RAV-264BH-PE/264AH8-PE
RAV-364BH-PE/364AH8/AH8-1-PE
RAV-464BH-PE/464AH8-PE

CEILING TYPE
RAV-134CH/CHR-PE/134AH-PE
RAV-164CH/CHR-PE/164AH-PE
RAV-264CH/CHR-PE/264AH-PE
RAV-264CH/CHR-PE/264AH8-PE
RAV-364CH/CHR-PE/364AH8/AH8-1-PE
RAV-464CH/CHR-PE/464AH8-PE

WALL TYPE
RAV-134KH/KHR-PE/134AH-PE
RAV-164KH/KHR-PE/164AH-PE
RAV-264KH/KHR-PE/264AH-PE
RAV-264KH/KHR-PE/264AH8-PE

CARCASE TYPE
RAV-104NH-PE
RAV-134NH-PE/134AH-PE
RAV-164NH-PE/164AH-PE
RAV-264NH-PE/264AH-PE
RAV-264NH-PE/264AH8-PE

LOW WALL/PAINTED FLOOR TYPE
RAV-164SH/SHR-PE/164AH-PE
RAV-264SH/SHR-PE/264AH-PE
RAV-264SH/SHR-PE/264AH8-PE

2 WAY CASSETTE TYPE
RAV-104TUH/TUH-1-PE
RAV-134TUH/TUH-1-PE/134AH-PE
RAV-164TUH/TUH-1-PE/164AH-PE

4 WAY CASSETTE TYPE
RAV-164UH-PE/164AH-PE
RAV-264UH-PE/264AH-PE
RAV-264UH-PE/264AH8-PE
RAV-364UH-PE/364AH8/AH8-1-PE
RAV-464UH-PE/464AH8-PE

HFC
R407C

Printed in UK MARCH 2003

Tel: 01823 665660 www.heronhill.co.uk Fax: 01823 665807

CONTENTS

1.	**SPECIFICATIONS**	**3**
2.	**CONSTRUCTIONS VIEWS**	**27**
3.	**WIRING DIAGRAMS**	**40**
4.	**SPECIFICATIONS OF ELECTRICAL PARTS**	**53**
5.	**REFRIGERANT PIPING DIAGRAMS**	**70**
6.	**REMOTE CONTROLLERS**	**77**
7.	**OUTLINE OF CONTROL CIRCUIT**	**92**
8.	**OPERATION OF AIR CONDITIONER FROM OUTDOOR UNIT**	**99**
9.	**EMERGENCY OPERATION**	**99**
10.	**SYSTEM STATUS OUTPUT**	**100**
11.	**WIRING FOR GROUP OPERATION**	**100**
12.	**PERFORMANCE CHARACTERISTICS**	**101**
13.	**EXPLODED VIEWS AND PARTS LISTS**	**105**

SUMMARY

The units referred to within this Manual conform with the protection requirements of Directives 89/336/EEC Electromagnetic Compatibility and 73/23/EEC Low Voltage.

Operating conditions of units are as follows:

OUTDOOR TEMPERATURE	-2 to 43°C (COOL) -10 to 21°C (HEAT)
ROOM TEMPERATURE	18 to 32°C (COOL) 15 to 29°C (HEAT)
ROOM HUMIDITY	LESS THAN 80% (COOL)

Note 1: Cooling Capacity is based on the following temperature conditions:
Indoor air inlet temperature 27°C DB, 19°C WB.
Outdoor air inlet temperature 35°C DB.

Note 2: Heating Capacity is based on the following temperature conditions:
Indoor air inlet temperature 20°C DB.
Outdoor air inlet temperature 7°C DB, 6°C WB.

Note 3: Metric/Imperial pipe conversion:

Diameter (mm)	6.4	9.5	12.7	15.9	19	22
Nominal Diameter (inch)	1/4	3/8	1/2	5/8	3/4	7/8

1. SPECIFICATIONS

Item		Model	RAV-104SBH-PE
Cooling capacity		kW	2.5
Heating capacity		kW	2.8
Power source		Phase	1
		V	220-240
		Hz	50
Power consumption		kW	0.07
Power factor		%	93
Running current		A	0.33
Starting current		A	0.6
Operating noise Indoor Unit	Sound pressure (High/Med/Low)	dB(A)	35/32/29
	Sound power (High)	dB(A)	47
Refrigerant	Name of Refrigerant		R407C
Interconnection pipe	Larger side size	mm	ø12.7
	Coupler style		Flare
	Smaller side size	mm	ø6.4
	Coupler style		Flare
Condensate drain pipe diameter		mm	1" BSP (male threaded connection)
Appearance colour			Zinc, galvanized steel & thermal insulation
Dimensions	Height	mm	220
	Width	mm	800
	Depth	mm	500
Net weight		kg	22
Heat exchanger type			Finned tube
Indoor fan type			Multi-blade fan
Air volume		m^3/hr	450
Fan motor output		W	34
External static pressure	Std/Max	mmAq	1.5/3.0
Air filter			Washable Reversible (rear or lower air inlet)

Specifications are subject to change without notice

1. SPECIFICATIONS

Item		Model	RAV-164BH-PE	
Cooling capacity		kW	4.5	
Heating capacity		kW	5.0	
Power source		Phase	1	
		V	220-240	
		Hz	50	
			COOLING	HEATING
Power consumption		kW	2.2	2.2
Power factor		%	90	89
Running current		A	10.6	10.7
Starting current		A	60	
Operating noise Indoor Unit	Sound pressure (High, Med, Low)	dB(A)	42/39/36	
	Sound power (High)	dB(A)	55	
Operating noise Outdoor Unit	Sound pressure	dB(A)	50	
	Sound power	dB(A)	67	
Refrigerant	Name of Refrigerant		R407C	
	Charge Volume	kg	1.2	
	Add. Volume (20-30m)	g/m	35	
Refrigerant control			Capillary tube & Expansion valve	
Interconnection pipe	Larger side size	mm	ø12.7	
	Coupler style		Flare	
	Smaller side size	mm	ø6.4	
	Coupler style		Flare	
	Standard length	m	7.5	
	Maximum actual pipe length (of one way)	m	30	
	Maximum height difference If Indoor Unit higher	m	15	
	If Outdoor Unit higher	m	30	
Condensate drain pipe diameter		mm	ø32.5 (ID)	
INDOOR UNIT Model			**RAV-164BH-PE**	
Appearance colour			Black (zinc galvanized steel & thermal insulator)	
Dimensions	Height	mm	345	
	Width	mm	770	
	Depth	mm	875	
Net weight		kg	39	
Heat exchanger type			Finned tube	
Indoor fan type			Multi-blade fan	
Air volume		m^3/h	840	
Fan motor output		W	60	
External static pressure	Standard	mmAq	4	
	Max. motor	mmAq	10	
OUTDOOR UNIT Model			**RAV-164AH-PE**	
Appearance colour			Silky Shade (RAL 1013)	
Dimensions	Height	mm	740	
	Width	mm	880	
	Depth	mm	310	
Net weight		kg	61	
Heat exchanger type			Finned tube	
Outdoor fan type			Propeller fan	
Air flow volume		m^3/h	2,700	
Fan motor output		W	39	
Compressor	Model		PG350X3F-4LS	
	Output	kW	1.5	
Protective device			High pressure switch, fuse, crankcase heater, inner overload relay, bi-metal thermostat	
Long-life filter kit			**RBC-RK162BE-PE**	
Dimensions	Height	mm	80	
	Width	mm	700	
	Depth	mm	285	
Net weight		kg	8	
Air filter			Washable	

Specifications are subject to change without notice

1. SPECIFICATIONS

Item		Model	RAV-264BH-PE		RAV-264BH-PE	
Cooling capacity		kW	7.1		7.1	
Heating capacity		kW	7.9		7.9	
Power source		Phase	1		3	
		V	220-240		380-415	
		Hz	50		50	
			COOLING	HEATING	COOLING	HEATING
Power consumption		kW	3.1	2.95	2.9	2.95
Power factor		%	90	90	85	85
Running current		A	15.0	14.2	4.9	5.0
Starting current		A	80		25	
Operating noise Indoor Unit	Sound pressure (High, Med, Low)	dB(A)	43/40/37		43/40/37	
	Sound power (High)	dB(A)	58		58	
Operating noise Outdoor Unit	Sound pressure	dB(A)	53		53	
	Sound power	dB(A)	67		67	
Refrigerant	Name of Refrigerant		R407C		R407C	
	Charge Volume	kg	1.9		1.9	
	Add. Volume (20-30m)	g/m	35		35	
Refrigerant control			Capillary tube & Expansion valve		Capillary tube & Expansion valve	
Interconnection pipe	Larger side size	mm	ø15.9		ø15.9	
	Coupler style		Flare		Flare	
	Smaller side size	mm	ø9.5		ø9.5	
	Coupler style		Flare		Flare	
	Standard length	m	7.5		7.5	
	Maximum actual pipe length (of one way)	m	30		30	
	Maximum height difference If Indoor Unit higher	m	15		15	
	If Outdoor Unit higher	m	30		30	
Condensate drain pipe diameter		mm	ø32.5 (ID)		ø32.5 (ID)	
INDOOR UNIT Model			**RAV-264BH-PE**		**RAV-264BH-PE**	
Appearance colour			Black (zinc galvanized steel & thermal insulator)		Black (zinc galvanized steel & thermal insulator)	
Dimensions	Height	mm	345		345	
	Width	mm	1,070		1,070	
	Depth	mm	875		875	
Net weight		kg	53		53	
Heat exchanger type			Finned tube		Finned tube	
Indoor fan type			Multi-blade fan		Multi-blade fan	
Air volume		m^3/h	1,140		1,140	
Fan motor output		W	100		100	
External static pressure	Standard	mmAq	4		4	
	Max. motor	mmAq	10		10	
OUTDOOR UNIT Model			**RAV-264AH-PE**		**RAV-264AH8-PE**	
Appearance colour			Silky Shade (RAL 1013)		Silky Shade (RAL 1013)	
Dimensions	Height	mm	790		790	
	Width	mm	880		880	
	Depth	mm	310		310	
Net weight		kg	80		80	
Heat exchanger type			Finned tube		Finned tube	
Outdoor fan type			Propeller fan		Propeller fan	
Air flow volume		m^3/h	3,000		3,000	
Fan motor output		W	63		63	
Compressor	Model		PG460X3F-4MS		YG460X3F-MS	
	Output	kW	2.2		2.2	
Protective device			High pressure switch, fuse, crankcase heater, inner overload relay, bi-metal thermostat		High pressure switch, fuse, crankcase heater, over current relay, bi-metal thermostat, reverse phase protector	
Long-life filter kit			**RBC-RK262BE-PE**		**RBC-RK262BE-PE**	
Dimensions	Height	mm	80		80	
	Width	mm	1000		1000	
	Depth	mm	285		285	
Net weight		kg	10		10	
Air filter			Washable		Washable	

Specifications are subject to change without notice

1. SPECIFICATIONS

Item		Model	RAV-364BH-PE	
Cooling capacity		kW	10.0	
Heating capacity		kW	10.8	
Power source		Phase	3	
		V	380-415	
		Hz	50	
			COOLING	HEATING
Power consumption		kW	4.2	3.9
Power factor		%	87	85
Running current		A	7.0	6.6
Starting current		A	42	
Operating noise	Sound pressure (High, Med, Low)	dB(A)	45/42/39	
Indoor Unit	Sound power (High)	dB(A)	60	
Operating noise	Sound pressure	dB(A)	55	
Outdoor Unit	Sound power	dB(A)	71	
Refrigerant	Name of Refrigerant		R407C	
	Charge Volume	kg	2.6	
	Add. Volume (20-50m)	g/m	35	
Refrigerant control			Capillary tube & Expansion valve	
Interconnection pipe	Larger side size*	mm	ø19 (ø22)	
	Coupler style		Flare	
	Smaller side size	mm	ø9.5	
	Coupler style		Flare	
	Standard length	m	7.5	
	Maximum actual pipe length (of one way)	m	50	
	Maximum height difference If Indoor Unit higher	m	20	
	If Outdoor Unit higher	m	50	
Condensate drain pipe diameter		mm	ø32.5 (ID)	
INDOOR UNIT Model			**RAV-364BH-PE**	
Appearance colour			Black (zinc galvanized steel & thermal insulator)	
Dimensions	Height	mm	345	
	Width	mm	1,420	
	Depth	mm	875	
Net weight		kg	58	
Heat exchanger type			Finned tube	
Indoor fan type			Multi-blade fan	
Air volume		m^3/h	1,820	
Fan motor output		W	120	
External static pressure	Standard	mmAq	4	
	Max. motor	mmAq	10	
OUTDOOR UNIT Model			**RAV-364AH8-1-PE**	
Appearance colour			Silky Shade (RAL 1013)	
Dimensions	Height	mm	1,240	
	Width	mm	930	
	Depth	mm	385	
Net weight		kg	98	
Heat exchanger type			Finned tube	
Outdoor fan type			Propeller fan	
Air flow volume		m^3/h	6,000	
Fan motor output		W	39 + 63	
Compressor	Model		ZR48K3E-TFD-522	
	Output	kW	3.6	
Protective device			High pressure switch, fuse, reverse phase protector, crankcase heater, inner overload relay, delivery temperature sensor. Bimetal Thermostat	
Long-life filter kit			**RBC-RK462BE-PE**	
Dimensions	Height	mm	80	
	Width	mm	1,350	
	Depth	mm	285	
Net weight		kg	12	
Air filter			Washable	

**(ø22) should be used when length of pipe exceeds 30m*
Specifications are subject to change without notice

1. SPECIFICATIONS

Item		Model	RAV-364BH-PE		RAV-464BH-PE	
Cooling capacity		kW	10.0		12.5	
Heating capacity		kW	10.8		13.8	
Power source		Phase	3		3	
		V	380-415		380-415	
		Hz	50		50	
			COOLING	HEATING	COOLING	HEATING
Power consumption		kW	4.2	3.9	5.15	5.4
Power factor		%	87	85	87	85
Running current		A	7.0	6.6	8.5	9.2
Starting current		A	42		50	
Operating noise Indoor Unit	Sound pressure (High, Med, Low)	dB(A)	45/42/39		46/43/40	
	Sound power (High)	dB(A)	60		61	
Operating noise Outdoor Unit	Sound pressure	dB(A)	55		55	
	Sound power	dB(A)	71		71	
Refrigerant	Name of Refrigerant		R407C		R407C	
	Charge Volume	kg	2.7		3.5	
	Add. Volume (20-50m)	g/m	35		50	
Refrigerant control			Capillary tube & Expansion valve		Capillary tube & Expansion valve	
Interconnection pipe	Larger side size*	mm	ø19 (ø22)		ø19 (ø22)	
	Coupler style		Flare		Flare	
	Smaller side size	mm	ø9.5		ø9.5	
	Coupler style		Flare		Flare	
	Standard length	m	7.5		7.5	
	Maximum actual pipe length (of one way)	m	50		50	
	Maximum height difference If Indoor Unit higher	m	20		20	
	If Outdoor Unit higher	m	50		50	
Condensate drain pipe diameter		mm	ø32.5 (ID)		ø32.5 (ID)	
INDOOR UNIT Model			**RAV-364BH-PE**		**RAV-464BH-PE**	
Appearance colour			Black (zinc galvanized steel & thermal insulator)		Black (zinc galvanized steel & thermal insulator)	
Dimensions	Height	mm	345		345	
	Width	mm	1,420		1,420	
	Depth	mm	875		875	
Net weight		kg	58		62	
Heat exchanger type			Finned tube		Finned tube	
Indoor fan type			Multi-blade fan		Multi-blade fan	
Air volume		m^3/h	1,820		2,100	
Fan motor output		W	120		140	
External static pressure	Standard	mmAq	4		4	
	Max. motor	mmAq	10		10	
OUTDOOR UNIT Model			**RAV-364AH8-PE**		**RAV-464AH8-PE**	
Appearance colour			Silky Shade (RAL 1013)		Silky Shade (RAL 1013)	
Dimensions	Height	mm	1,240		1,240	
	Width	mm	930		930	
	Depth	mm	385		385	
Net weight		kg	103		118	
Heat exchanger type			Finned tube		Finned tube	
Outdoor fan type			Propeller fan		Propeller fan	
Air flow volume		m^3/h	6,000		6,000	
Fan motor output		W	39 + 63		39 + 63	
Compressor	Model		ZR49KCE-TFD-230		ZR61KCE-TFD-230	
	Output	kW	3.0		3.75	
Protective device			High pressure switch, fuse, reverse phase protector, crankcase heater, inner overload relay, delivery temperature sensor			
Long-life filter kit			**RBC-RK462BE-PE**		**RBC-RK462BE-PE**	
Dimensions	Height		80		80	
	Width	mm	1,350		1,350	
	Depth	mm	285		285	
Net weight		mm	12		12	
Air filter		kg	Washable		Washable	

**(ø22) should be used when length of pipe exceeds 30m*
Specifications are subject to change without notice

1. SPECIFICATIONS

Item		Model	RAV-134CH/CHR-PE		RAV-164CH/CHR-PE	
Cooling capacity		kW	3.6		4.5	
Heating capacity		kW	4.2		5.0	
Power source		Phase	1		1	
		V	220-240		220-240	
		Hz	50		50	
			COOLING	HEATING	COOLING	HEATING
Power consumption		kW	2.0	2.15	2.2	2.2
Power factor		%	88	90	90	89
Running current		A	9.9	10.4	10.6	10.7
Starting current		A	60		60	
Operating noise Indoor Unit	Sound pressure (High, Med, Low)	dB(A)	40/37/33		43/39/36	
	Sound pressure (High)	dB(A)	51		55	
Operating noise Outdoor Unit	Sound pressure	dB(A)	50		50	
	Sound power	dB(A)	63		67	
Refrigerant	Name of Refrigerant		R407C		R407C	
	Charge Volume	kg	1.05		1.2	
	Add. Volume (20-30m)	g/m	35		35	
Refrigerant control			Capillary tube & Expansion valve		Capillary tube & Expansion valve	
Interconnection pipe	Larger side size	mm	ø12.7		ø12.7	
	Coupler style		Flare		Flare	
	Smaller side size	mm	ø6.4		ø6.4	
	Coupler style		Flare		Flare	
	Standard length	m	7.5		7.5	
	Maximum actual pipe length (of one way)	m	30		30	
	Maximum height difference If Indoor Unit higher	m	15		15	
	If Outdoor Unit higher	m	30		30	
Condensate drain pipe diameter		mm	ø20 (OD)		ø20 (OD)	
INDOOR UNIT Model			**RAV-134CH/CHR-PE**		**RAV-164CH/CHR-PE**	
Appearance colour			Silky Mist		Silky Mist	
Dimensions	Height	mm	188		188	
	Width	mm	1,030		1,030	
	Depth	mm	640		640	
Net weight		kg	24		24	
Heat exchanger type			Finned tube		Finned tube	
Indoor fan type			Multi-blade fan		Multi-blade fan	
Air volume		m^3/h	780		850	
Fan motor output		W	34		34	
Air filter			Washable		Washable	
OUTDOOR UNIT Model			**RAV-134AH-PE**		**RAV-164AH-PE**	
Appearance colour			Silky Shade (RAL 1013)		Silky Shade (RAL 1013)	
Dimensions	Height	mm	740		740	
	Width	mm	880		880	
	Depth	mm	310		310	
Net weight		kg	61		61	
Heat exchanger type			Finned tube		Finned tube	
Outdoor fan type			Propeller fan		Propeller fan	
Air flow volume		m^3/h	2,700		2,700	
Fan motor output		W	39		39	
Compressor	Model		PG330X3F-4LS		PG350X3F-4LS	
	Output	kW	1.5		1.5	
Protective device			High pressure switch, fuse, crankcase heater, inner overload relay, bi-metal thermostat			

Specifications are subject to change without notice

1. SPECIFICATIONS

Item		Model	RAV-264CH/CHR-PE		RAV-264CH/CHR-PE	
Cooling capacity		kW	7.1		7.1	
Heating capacity		kW	7.9		7.9	
Power source		Phase	1		3	
		V	220-240		380-415	
		Hz	50		50	
			COOLING	HEATING	COOLING	HEATING
Power consumption		kW	3.1	2.95	2.9	2.95
Power factor		%	90	90	85	85
Running current		A	15.0	14.2	4.9	5.0
Starting current		A	80		25	
Operating noise Indoor Unit	Sound pressure (High, Med, Low)	dB(A)	45/41/37		45/41/37	
	Sound power (High)	dB(A)	55		55	
Operating noise Outdoor Unit	Sound pressure	dB(A)	53		53	
	Sound power	dB(A)	67		67	
Refrigerant	Name of Refrigerant		R407C		R407C	
	Charge Volume	kg	1.9		1.9	
	Add. Volume (20-30m)	g/m	35		35	
Refrigerant control			Capillary tube & Expansion valve		Capillary tube & Expansion valve	
Interconnection pipe	Larger side size	mm	ø15.9		ø15.9	
	Coupler style		Flare		Flare	
	Smaller side size	mm	ø9.5		ø9.5	
	Coupler style		Flare		Flare	
	Standard length	m	7.5		7.5	
	Maximum actual pipe length (of one way)	m	30		30	
	Maximum height difference If Indoor Unit higher	m	15		15	
	If Outdoor Unit higher	m	30		30	
Condensate drain pipe diameter		mm	ø20 (OD)		ø20 (OD)	
INDOOR UNIT Model			**RAV-264CH/CHR-PE**		**RAV-264CH/CHR-PE**	
Appearance colour			Silky Mist		Silky Mist	
Dimensions	Height	mm	188		188	
	Width	mm	1,230		1,230	
	Depth	mm	640		640	
Net weight		kg	28		28	
Heat exchanger type			Finned tube		Finned tube	
Indoor fan type			Multi-blade fan		Multi-blade fan	
Air volume		m^3/h	1,200		1,200	
Fan motor output		W	34		34	
Air filter			Washable		Washable	
OUTDOOR UNIT Model			**RAV-264AH-PE**		**RAV-264AH8-PE**	
Appearance colour			Silky Shade (RAL 1013)		Silky Shade (RAL 1013)	
Dimensions	Height	mm	790		790	
	Width	mm	880		880	
	Depth	mm	310		310	
Net weight		kg	80		80	
Heat exchanger type			Finned tube		Finned tube	
Outdoor fan type			Propeller fan		Propeller fan	
Air flow volume		m^3/h	3,000		3,000	
Fan motor output		W	63		63	
Compressor	Model		PG460X3F-4MS		YG460X3F-MS	
	Output	kW	2.2		2.2	
Protective device			High pressure switch, fuse, crankcase heater, inner overload relay, bi-metal thermostat		High pressure switch, fuse, crankcase heater, overcurrent relay, thermostat, reverse phase protector	

Specifications are subject to change without notice

1. SPECIFICATIONS

Item		Model	RAV-364CH/CHR-PE	
Cooling capacity		kW	10.0	
Heating capacity		kW	10.8	
Power source		Phase	3	
		V	380-415	
		Hz	50	
			COOLING	HEATING
Power consumption		kW	4.2	3.9
Power factor		%	87	85
Running current		A	7.0	6.6
Starting current		A	42	
Operating noise	Sound pressure (High, Med, Low)	dB(A)	47/43/40	
Indoor Unit	Sound power (High)	dB(A)	56	
Operating noise	Sound pressure	dB(A)	55	
Outdoor Unit	Sound power	dB(A)	71	
Refrigerant	Name of Refrigerant		R407C	
	Charge Volume	kg	2.6	
	Add. Volume (20-50m)	g/m	35	
Refrigerant control			Capillary tube & Expansion valve	
Interconnection pipe	Larger side size*	mm	ø19 (ø22)	
	Coupler style		Flare	
	Smaller side size	mm	ø9.5	
	Coupler style		Flare	
	Standard length	m	7.5	
	Maximum actual pipe length (of one way)	m	50	
	Maximum height difference If Indoor Unit higher	m	20	
	If Outdoor Unit higher	m	50	
Condensate drain pipe diameter		mm	ø20 (OD)	
INDOOR UNIT Model			**RAV-364CH/CHR-PE**	
Appearance colour			Silky Mist	
Dimensions	Height	mm	240	
	Width	mm	1,430	
	Depth	mm	640	
Net weight		kg	39	
Heat exchanger type			Finned tube	
Indoor fan type			Multi-blade fan	
Air volume		m³/h	1,680	
Fan motor output		W	75	
Air filter			Washable	
OUTDOOR UNIT Model			**RAV-364AH8-1-PE**	
Appearance colour			Silky Shade (RAL 1013)	
Dimensions	Height	mm	1,240	
	Width	mm	930	
	Depth	mm	385	
Net weight		kg	98	
Heat exchanger type			Finned tube	
Outdoor fan type			Propeller fan	
Air flow volume		m³/h	6,000	
Fan motor output		W	39 + 63	
Compressor	Model		ZR48K3E-TFD-522	
	Output	kW	3.6	
Protective device			High pressure switch, fuse, reverse phase protector, crankcase heater, inner overload relay, delivery temperature sensor. Bimetal Thermostat	

**(ø22) should be used when length of pipe exceeds 30m*
Specifications are subject to change without notice

1. SPECIFICATIONS

Item		Model	RAV-364CH/CHR-PE		RAV-464CH/CHR-PE	
Cooling capacity		kW	10.0		12.5	
Heating capacity		kW	10.8		13.8	
Power source		Phase	3		3	
		V	380-415		380-415	
		Hz	50		50	
			COOLING	HEATING	COOLING	HEATING
Power consumption		kW	4.2	3.9	5.15	5.4
Power factor		%	87	85	87	85
Running current		A	7.0	6.6	8.5	9.2
Starting current		A	42		50	
Operating noise Indoor Unit	Sound pressure (High, Med, Low)	dB(A)	47/43/40		49/45/41	
	Sound power (High)	dB(A)	56		57	
Operating noise Outdoor Unit	Sound pressure	dB(A)	55		55	
	Sound power	dB(A)	71		71	
Refrigerant	Name of Refrigerant		R407C		R407C	
	Charge Volume	kg	2.7		3.5	
	Add. Volume (20-50m)	g/m	35		50	
Refrigerant control			Capillary tube & Expansion valve		Capillary tube & Expansion valve	
Interconnection pipe	Larger side size*	mm	ø19 (ø22)		ø19 (ø22)	
	Coupler style		Flare		Flare	
	Smaller side size	mm	ø9.5		ø9.5	
	Coupler style		Flare		Flare	
	Standard length	m	7.5		7.5	
	Maximum actual pipe length (of one way)	m	50		50	
	Maximum height difference If Indoor Unit higher	m	20		20	
	If Outdoor Unit higher	m	50		50	
Condensate drain pipe diameter		mm	ø20 (OD)		ø20 (OD)	
INDOOR UNIT Model			**RAV-364CH/CHR-PE**		**RAV-464CH/CHR-PE**	
Appearance colour			Silky Mist		Silky Mist	
Dimensions	Height	mm	240		240	
	Width	mm	1,430		1,630	
	Depth	mm	640		640	
Net weight		kg	39		44	
Heat exchanger type			Finned tube		Finned tube	
Indoor fan type			Multi-blade fan		Multi-blade fan	
Air volume		m³/h	1,680		2,100	
Fan motor output		W	75		75	
Air filter			Washable		Washable	
OUTDOOR UNIT Model			**RAV-364AH8-PE**		**RAV-464AH8-PE**	
Appearance colour			Silky Shade (RAL 1013)		Silky Shade (RAL 1013)	
Dimensions	Height	mm	1,240		1,240	
	Width	mm	930		930	
	Depth	mm	385		385	
Net weight		kg	103		118	
Heat exchanger type			Finned tube		Finned tube	
Outdoor fan type			Propeller fan		Propeller fan	
Air flow volume		m³/h	6,000		6,000	
Fan motor output		W	39 + 63		39 + 63	
Compressor	Model		ZR49KCE-TFD-230		ZR61KCE-TFD-230	
	Output	kW	3.0		3.75	
Protective device			High pressure switch, fuse, reverse phase protector, crankcase heater, inner overload relay, delivery temperature sensor			

**(ø22) should be used when length of pipe exceeds 30m*

Specifications are subject to change without notice

1. SPECIFICATIONS

Item		Model	RAV-134KH/KHR-PE		RAV-164KH/KHR-PE	
Cooling capacity		kW	3.6		4.5	
Heating capacity		kW	4.2		5.0	
Power source		Phase	1		1	
		V	220-240		220-240	
		Hz	50		50	
			COOLING	HEATING	COOLING	HEATING
Power consumption		kW	2.0	2.15	2.2	2.2
Power factor		%	88	90	90	89
Running current		A	9.9	10.4	10.6	10.7
Starting current		A	60		60	
Operating noise Indoor Unit	Sound pressure (High, Med, Low)	dB(A)	42/38/35		43/39/36	
	Sound power (High)	dB(A)	50		53	
Operating noise Outdoor Unit	Sound pressure	dB(A)	50		50	
	Sound power	dB(A)	63		67	
Refrigerant	Name of Refrigerant		R407C		R407C	
	Charge Volume	kg	1.05		1.2	
	Add. Volume (20-30m)	g/m	35		35	
Refrigerant control			Capillary tube & Expansion valve		Capillary tube & Expansion valve	
Interconnection pipe	Larger side size	mm	ø12.7		ø12.7	
	Coupler style		Flare		Flare	
	Smaller side size	mm	ø6.4		ø6.4	
	Coupler style		Flare		Flare	
	Standard length	m	7.5		7.5	
	Maximum actual pipe length (of one way)	m	30		30	
	Maximum height difference If Indoor Unit higher	m	15		15	
	If Outdoor Unit higher	m	30		30	
Condensate drain pipe diameter		mm	ø20 (OD)		ø20 (OD)	
INDOOR UNIT Model			**RAV-134KH/KHR-PE**		**RAV-164KH/KHR-PE**	
Appearance colour			Silky Mist		Silky Mist	
Dimensions	Height	mm	372		372	
	Width	mm	1,150		1,150	
	Depth	mm	226		226	
Net weight		kg	20		20	
Heat exchanger type			Finned tube		Finned tube	
Indoor fan type			Transverse flow fan		Transverse flow fan	
Air volume		m³/h	700		770	
Fan motor output		W	27		27	
Air filter			Washable		Washable	
OUTDOOR UNIT Model			**RAV-134AH-PE**		**RAV-164AH-PE**	
Appearance colour			Silky Shade (RAL 1013)		Silky Shade (RAL 1013)	
Dimensions	Height	mm	740		740	
	Width	mm	880		880	
	Depth	mm	310		310	
Net weight		kg	61		61	
Heat exchanger type			Finned tube		Finned tube	
Outdoor fan type			Propeller fan		Propeller fan	
Air flow volume		m³/h	2,700		2,700	
Fan motor output		W	39		39	
Compressor	Model		PG330X3F-4LS		PG350X3F-4LS	
	Output	kW	1.5		1.5	
Protective device			High pressure switch, fuse, crankcase heater, inner overload relay, bi-metal thermostat			

Specifications are subject to change without notice

1. SPECIFICATIONS

Item		Model	RAV-264KH/KHR-PE		RAV-264KH/KHR-PE	
Cooling capacity		kW	7.1		7.1	
Heating capacity		kW	7.9		7.9	
Power source		Phase	1		3	
		V	220-240		380-415	
		Hz	50		50	
			COOLING	HEATING	COOLING	HEATING
Power consumption		kW	3.1	2.95	2.9	2.95
Power factor		%	90	90	85	85
Running current		A	15.0	14.2	4.9	5.0
Starting current		A	80		25	
Operating noise Indoor Unit	Sound pressure (High, Med, Low)	dB(A)	44/40/37		44/40/37	
	Sound power (High)	dB(A)	53		53	
Operating noise Outdoor Unit	Sound pressure	dB(A)	53		53	
	Sound power	dB(A)	67		67	
Refrigerant	Name of Refrigerant		R407C		R407C	
	Charge Volume	kg	1.9		1.9	
	Add. Volume (20-30m)	g/m	35		35	
Refrigerant control			Capillary tube & Expansion valve		Capillary tube & Expansion valve	
Interconnection pipe	Larger side size	mm	ø15.9		ø15.9	
	Coupler style		Flare		Flare	
	Smaller side size	mm	ø9.5		ø9.5	
	Coupler style		Flare		Flare	
	Standard length	m	7.5		7.5	
	Maximum actual pipe length (of one way)	m	30		30	
	Maximum height difference If Indoor Unit higher	m	15		15	
	If Outdoor Unit higher	m	30		30	
Condensate drain pipe diameter		mm	ø20 (OD)		ø20 (OD)	
INDOOR UNIT Model			**RAV-264KH/KHR-PE**		**RAV-264KH/KHR-PE**	
Appearance colour			Silky Mist		Silky Mist	
Dimensions	Height	mm	372		372	
	Width	mm	1,478		1,478	
	Depth	mm	226		226	
Net weight		kg	26		26	
Heat exchanger type			Finned tube		Finned tube	
Indoor fan type			Transverse flow fan		Transverse flow fan	
Air volume		m^3/h	1,200		1,200	
Fan motor output		W	27		27	
Air filter			Washable		Washable	
OUTDOOR UNIT Model			**RAV-264AH-PE**		**RAV-264AH8-PE**	
Appearance colour			Silky Shade (RAL 1013)		Silky Shade (RAL 1013)	
Dimensions	Height	mm	790		790	
	Width	mm	880		880	
	Depth	mm	310		310	
Net weight		kg	80		80	
Heat exchanger type			Finned tube		Finned tube	
Outdoor fan type			Propeller fan		Propeller fan	
Air flow volume		m^3/h	3,000		3,000	
Fan motor output		W	63		63	
Compressor	Model		PG460X3F-4MS		YG460X3F-MS	
	Output	kW	2.2		2.2	
Protective device			High pressure switch, fuse, bi-metal thermostat, crankcase heater, inner overload relay		High pressure switch, fuse, overcurrent relay, crankcase heater, thermostat, reverse phase protector	

Specifications are subject to change without notice

1. SPECIFICATIONS

Item		Model	RAV-104NH-PE
Power source		Phase	1
		V	220-240
		Hz	50
Power consumption		kW	0.07
Power factor		%	93
Running current		A	0.33
Starting current		A	0.6
Operating noise	Sound pressure (High, Med, Low)	dB(A)	40/37/34
Indoor Unit	Sound power (High)	dB(A)	54
Refrigerant	Name of Refrigerant		R407C
Interconnection pipe	Larger side size	mm	ø12.7
	Coupler style		Flare
	Smaller side size	mm	ø6.4
	Coupler style		Flare
Condensate drain pipe diameter		mm	ø20 (OD)
Appearance colour			Zinc, galvanized steel
Dimensions	Height	mm	600 (if top air outlet) 580 (if front outlet)
	Width	mm	745 (including drain catch)
	Depth	mm	230 (if top air outlet) 250 (if front air outlet)
Net weight		kg	21
Heat exchanger type			Finned tube
Indoor fan type			Multi-blade fan
Air volume		m^3/h	550
Fan motor output		W	34
Air filter			Washable

Specifications are subject to change without notice

1. SPECIFICATIONS

Item		Model	RAV-134NH-PE		RAV-164NH-PE	
Cooling capacity		kW	3.6		4.5	
Heating capacity		kW	4.2		5.0	
Power source		Phase	1		1	
		V	220-240		220-240	
		Hz	50		50	
			COOLING	HEATING	COOLING	HEATING
Power consumption		kW	2.0	2.15	2.2	2.2
Power factor		%	88	90	90	89
Running current		A	9.9	10.4	10.6	10.7
Starting current		A	60		60	
Operating noise Indoor Unit	Sound pressure (High, Med, Low)	dB(A)	41/38/35		42/39/36	
	Sound power (High)	dB(A)	54		54	
Operating noise Outdoor Unit	Sound pressure	dB(A)	50		50	
	Sound power	dB(A)	63		67	
Refrigerant	Name of Refrigerant		R407C		R407C	
	Charge Volume	kg	1.05		1.2	
	Add. Volume (20-30m)	g/m	35		35	
Refrigerant control			Capillary tube & Expansion valve		Capillary tube & Expansion valve	
Interconnection pipe	Larger side size	mm	ø12.7		ø12.7	
	Coupler style		Flare		Flare	
	Smaller side size	mm	ø6.4		ø6.4	
	Coupler style		Flare		Flare	
	Standard length	m	7.5		7.5	
	Maximum actual pipe length (of one way)	m	30		30	
	Maximum height difference If Indoor Unit higher	m	15		15	
	If Outdoor Unit higher	m	30		30	
Condensate drain pipe diameter		mm	ø20 (OD)		ø20 (OD)	
INDOOR UNIT Model			**RAV-134NH-PE**		**RAV-164NH-PE**	
Appearance colour			Zinc (galvanized steel)		Zinc (galvanized steel)	
Dimensions	Height	mm	600 (if top air outlet) 580 (if front air outlet)		600 (if top air outlet) 580 (if front air outlet)	
	Width	mm	1,045 (including drain catch)		1,045 (including drain catch)	
	Depth	mm	230 (if top air outlet) 250 (if front air outlet)		230 (if top air outlet) 250 (if front air outlet)	
Net weight		kg	25		29	
Heat exchanger type			Finned tube		Finned tube	
Indoor fan type			Multi-blade fan		Multi-blade fan	
Air volume		m³/h	625		740	
Fan motor output		W	34		34	
Air filter			Washable		Washable	
OUTDOOR UNIT Model			**RAV-134AH-PE**		**RAV-164AH-PE**	
Appearance colour			Silky Shade (RAL 1013)		Silky Shade (RAL 1013)	
Dimensions	Height	mm	740		740	
	Width	mm	880		880	
	Depth	mm	310		310	
Net weight		kg	61		61	
Heat exchanger type			Finned tube		Finned tube	
Outdoor fan type			Propeller fan		Propeller fan	
Air flow volume		m³/h	2,700		2,700	
Fan motor output		W	39		39	
Compressor	Model		PG330X3F-4LS		PG350X3F-4LS	
	Output	kW	1.5		1.5	
Protective device			High pressure switch, fuse, crankcase heater, inner overload relay, bi-metal thermostat			

Specifications are subject to change without notice

1. SPECIFICATIONS

Item		Model	RAV-264NH-PE		RAV-264NH-PE	
Cooling capacity		kW	5.7		5.7	
Heating capacity		kW	6.7		6.7	
Power source		Phase	1		3	
		V	220-240		380-415	
		Hz	50		50	
			COOLING	HEATING	COOLING	HEATING
Power consumption		kW	2.8	2.8	2.8	2.8
Power factor		%	90	90	80	82
Running current		A	13.7	13.5	5.1	4.9
Starting current		A	80		25	
Operating noise Indoor Unit	Sound pressure (High, Med, Low)	dB(A)	42/39/36		42/39/36	
	Sound power (High)	dB(A)	52		52	
Operating noise Outdoor Unit	Sound pressure	dB(A)	53		53	
	Sound power	dB(A)	67		67	
Refrigerant	Name of Refrigerant		R407C		R407C	
	Charge Volume	kg	1.9		1.9	
	Add. Volume (20-30m)	g/m	35		35	
Refrigerant control			Capillary tube & Expansion valve		Capillary tube & Expansion valve	
Interconnection pipe	Larger side size	mm	ø15.9		ø15.9	
	Coupler style		Flare		Flare	
	Smaller side size	mm	ø9.5		ø9.5	
	Coupler style		Flare		Flare	
	Standard length	m	7.5		7.5	
	Maximum actual pipe length (of one way)	m	30		30	
	Maximum height difference If Indoor Unit higher	m	15		15	
	If Outdoor Unit higher	m	30		30	
Condensate drain pipe diameter		mm	ø20 (OD)		ø20 (OD)	
INDOOR UNIT Model			**RAV-264NH-PE**		**RAV-264NH-PE**	
Appearance colour			Zinc (galvanized steel)		Zinc (galvanized steel)	
Dimensions	Height	mm	600 (if top air outlet) 580 (if front air outlet)		600 (if top air outlet) 580 (if front air outlet)	
	Width	mm	1,045 (including drain catch)		1,045 (including drain catch)	
	Depth	mm	230 (if top air outlet) 250 (if front air outlet)		230 (if top air outlet) 250 (if front air outlet)	
Net weight		kg	29		29	
Heat exchanger type			Finned tube		Finned tube	
Indoor fan type			Multi-blade fan		Multi-blade fan	
Air volume		m³/h	900		900	
Fan motor output		W	34		34	
Air filter			Washable		Washable	
OUTDOOR UNIT Model			**RAV-264AH-PE**		**RAV-264AH8-PE**	
Appearance colour			Silky Shade (RAL 1013)		Silky Shade (RAL 1013))	
Dimensions	Height	mm	790		790	
	Width	mm	880		880	
	Depth	mm	310		310	
Net weight		kg	80		80	
Heat exchanger type			Finned tube		Finned tube	
Outdoor fan type			Propeller fan		Propeller fan	
Air flow volume		m³/h	3,000		3,000	
Fan motor output		W	63		63	
Compressor	Model		PG460X3F-4MS		YG460X3F-MS	
	Output	kW	2.2		2.2	
Protective device			High pressure swich, fuse, crankcase heater, inner overload relay, bi-metal thermostat		High pressure switch, fuse, crankcase heater, overcurrent relay, thermostat, reverse phase protector	

Specifications are subject to change without notice

1. SPECIFICATIONS

Item		Model	RAV-164SH/SHR-PE	
Cooling capacity		kW	4.5	
Heating capacity		kW	5.0	
Power source		Phase	1	
		V	220-240	
		Hz	50	
			COOLING	HEATING
Power consumption		kW	2.2	2.2
Power factor		%	90	89
Running current		A	10.6	10.7
Starting current		A	60	
Operating noise Indoor Unit	Sound pressure (High, Med, Low)	dB(A)	42/39/36	
	Sound power (High)	dB(A)	54	
Operating noise Outdoor Unit	Sound pressure	dB(A)	50	
	Sound power	dB(A)	67	
Refrigerant	Name of Refrigerant		R407C	
	Charge Volume	kg	1.2	
	Add. Volume (20-30m)	g/m	35	
Refrigerant control			Capillary tube & Expansion valve	
Interconnection pipe	Larger side size	mm	ø12.7	
	Coupler style		Flare	
	Smaller side size	mm	ø6.4	
	Coupler style		Flare	
	Standard length	m	7.5	
	Maximum actual pipe length (of one way)	m	30	
	Maximum height difference If Indoor Unit higher	m	15	
	If Outdoor Unit higher	m	30	
Condensate drain pipe diameter		mm	ø20 (OD)	
INDOOR UNIT Model			**RAV-164SH/SHR-PE**	
Appearance colour			Silky Mist	
Dimensions	Height	mm	640	
	Width	mm	1,030	
	Depth	mm	188	
Net weight		kg	24	
Heat exchanger type			Finned tube	
Indoor fan type			Multi-blade fan	
Air volume		m^3/h	850	
Fan motor output		W	34	
Air filter			Washable	
OUTDOOR UNIT Model			**RAV-164AH-PE**	
Appearance colour			Silky Shade (RAL 1013)	
Dimensions	Height	mm	740	
	Width	mm	880	
	Depth	mm	310	
Net weight		kg	61	
Heat exchanger type			Finned tube	
Outdoor fan type			Propeller fan	
Air flow volume		m^3/h	2,700	
Fan motor output		W	39	
Compressor	Model		PG350X3F-4LS	
	Output	kW	1.5	
Protective device			High pressure switch, fuse, bi-metal thermostat, crankcase heater, inner overload relay	

Specifications are subject to change without notice

1. SPECIFICATIONS

Item		Model	RAV-264SH/SHR-PE		RAV-264SH/SHR-PE	
Cooling capacity		kW	7.1		7.1	
Heating capacity		kW	7.9		7.9	
Power source		Phase	1		3	
		V	220-240		380-415	
		Hz	50		50	
			COOLING	HEATING	COOLING	HEATING
Power consumption		kW	3.1	2.95	2.9	2.95
Power factor		%	90	90	85	85
Running current		A	15.0	14.2	4.9	5.0
Starting current		A	80		25	
Operating noise Indoor Unit	Sound pressure (High, Med, Low)	dB(A)	44/39/36		44/39/36	
	Sound power (High)	dB(A)	54		54	
Operating noise Outdoor Unit	Sound pressure	dB(A)	53		53	
	Sound power	dB(A)	67		67	
Refrigerant	Name of Refrigerant		R407C		R407C	
	Charge Volume	kg	1.9		1.9	
	Add. Volume (20-30m)	g/m	35		35	
Refrigerant control			Capillary tube & Expansion valve		Capillary tube & Expansion valve	
Interconnection pipe	Larger side size	mm	ø15.9		ø15.9	
	Coupler style		Flare		Flare	
	Smaller side size	mm	ø9.5		ø9.5	
	Coupler style		Flare		Flare	
	Standard length	m	7.5		7.5	
	Maximum actual pipe length (of one way)	m	30		30	
	Maximum height difference If Indoor Unit higher	m	15		15	
	If Outdoor Unit higher	m	30		30	
Condensate drain pipe diameter		mm	ø20 (OD)		ø20 (OD)	
INDOOR UNIT Model			**RAV-264SH/SHR-PE**		**RAV-264SH/SHR-PE**	
Appearance colour			Silky Mist		Silky Mist	
Dimensions	Height	mm	640		640	
	Width	mm	1,230		1,230	
	Depth	mm	188		188	
Net weight		kg	28		28	
Heat exchanger type			Finned tube		Finned tube	
Indoor fan type			Multi-blade fan		Multi-blade fan	
Air volume		m^3/h	1,200		1,200	
Fan motor output		W	34		34	
Air filter			Washable		Washable	
OUTDOOR UNIT Model			**RAV-264AH-PE**		**RAV-264AH8-PE**	
Appearance colour			Silky Shade (RAL 1013)		Silky Shade (RAL 1013)	
Dimensions	Height	mm	790		790	
	Width	mm	880		880	
	Depth	mm	310		310	
Net weight		kg	80		80	
Heat exchanger type			Finned tube		Finned tube	
Outdoor fan type			Propeller fan		Propeller fan	
Air flow volume		m^3/h	3,000		3,000	
Fan motor output		W	63		63	
Compressor	Model		PG460X3F-4MS		YG460X3F-MS	
	Output	kW	2.2		2.2	
Protective device			High pressure switch, fuse, crankcase heater, inner overload relay, bi-metal thermostat		High pressure switch, fuse, crankcase heater, overcurrent relay, thermostat, reverse phase protector	

Specifications are subject to change without notice

1. SPECIFICATIONS

Item		Model	RAV-104TUH-PE
Power source		Phase	1
		V	220-240
		Hz	50
Power consumption		kW	0.07
Power factor		%	93
Running current		A	0.33
Starting current		A	0.6
Operating noise	Sound pressure (High, Med, Low)	dB(A)	40/36/34
Indoor Unit	Sound power (High)	dB(A)	45
Refrigerant	Name of Refrigerant		R407C
Interconnection pipe	Larger side size	mm	ø12.7
	Coupler style		Flare
	Smaller side size	mm	ø6.4
	Coupler style		Flare
Condensate drain pipe diameter		mm	ø25.5 (OD)
Appearance colour			Grey (galvanized steel& thermal insulation)
Dimensions	Height	mm	190
	Width	mm	910
	Depth	mm	480
Net weight		kg	23
Heat exchanger type			Finned tube
Indoor fan type			Transverse flow fan
Air volume		m^3/h	550
Fan motor output		W	7 x 2
CEILING PANEL model			**RBC-U133PG(W)-PE**
Appearance colour			Silky white (Munsell 2.9Y8.9/0.8)
Dimensions	Height	mm	25
	Width	mm	1,050
	Depth	mm	550
Net weight		kg	4.5
Air filter			Washable

Specifications are subject to change without notice

1. SPECIFICATIONS

Item		Model	RAV-134TUH-PE		RAV-164TUH-PE	
Cooling capacity		kW	3.6		4.5	
Heating capacity		kW	4.2		5.0	
Power source		Phase	1		1	
		V	220-240		220-240	
		Hz	50		50	
			COOLING	HEATING	COOLING	HEATING
Power consumption		kW	2.0	2.15	2.2	2.2
Power factor		%	88	90	90	89
Running current		A	9.9	10.4	10.6	10.7
Starting current		A	60		60	
Operating noise Indoor Unit	Sound pressure (High, Med, Low)	dB(A)	40/36/34		41/37/35	
	Sound power (High)	dB(A)	48		48	
Operating noise Outdoor Unit	Sound pressure	dB(A)	50		50	
	Sound power	dB(A)	63		67	
Refrigerant	Name of Refrigerant		R407C		R407C	
	Charge Volume	kg	1.05		1.2	
	Add. Volume (20-30m)	g/m	35		35	
Refrigerant control			Capillary tube & Expansion valve		Capillary tube & Expansion valve	
Interconnection pipe	Larger side size	mm	ø12.7		ø12.7	
	Coupler style		Flare		Flare	
	Smaller side size	mm	ø6.4		ø6.4	
	Coupler style		Flare		Flare	
	Standard length	m	7.5		7.5	
	Maximum actual pipe length (of one way)	m	30		30	
	Maximum height difference If Indoor Unit higher	m	15		15	
	If Outdoor Unit higher	m	30		30	
Condensate drain pipe diameter		mm	ø25.5 (OD)		ø25.5 (OD)	
INDOOR UNIT Model			**RAV-134TUH-PE**		**RAV-164TUH-PE**	
Appearance colour			Grey (galvanized steel & thermal insulator)		Grey (galvanized steel & thermal insulator)	
Dimensions	Height	mm	190		190	
	Width	mm	910		910	
	Depth	mm	480		480	
Net weight		kg	23		23	
Heat exchanger type			Finned tube		Finned tube	
Indoor fan type			Transverse flow fan		Transverse flow fan	
Air volume		m^3/h	700		750	
Fan motor output		W	7 x 2		7 x 2	
OUTDOOR UNIT Model			**RAV-134AH-PE**		**RAV-164AH-PE**	
Appearance colour			Silky Shade (RAL 1013)		Silky Shade (RAL 1013)	
Dimensions	Height	mm	740		740	
	Width	mm	880		880	
	Depth	mm	310		310	
Net weight		kg	61		61	
Heat exchanger type			Finned tube		Finned tube	
Outdoor fan type			Propeller fan		Propeller fan	
Air flow volume		m^3/h	2,700		2,700	
Fan motor output		W	39		39	
Compressor	Model		PG330X3F-4LS		PG350X3F-4LS	
	Output	kW	1.5		1.5	
Protective device			High pressure switch, fuse, crankcase heater, inner overload relay, bi-metal thermostat			
CEILING PANEL model			**RBC-U133PG(W)-PE**		**RBC-U133PG(W)-PE**	
Appearance colour			Silky white (Munsell 2.9Y8.9/0.8)		Silky white (Munsell 2.9Y8.9/0.8)	
Dimensions	Height	mm	25		25	
	Width	mm	1,050		1,050	
	Depth	mm	550		550	
Net weight		kg	4.5		4.5	
Air filter			Washable		Washable	

Specifications are subject to change without notice

1. SPECIFICATIONS

Item		Model	RAV-104TUH-1-PE
Cooling capacity		kW	2.5
Heating capacity		kW	2.8
Power source		Phase	1
		V	220-240
		Hz	50
Power consumption		kW	0.07
Power factor		%	93
Running current		A	0.33
Starting current		A	0.6
Operating noise	Sound pressure (High/Med/Low)	dB(A)	40/36/34
Indoor Unit	Sound power (High)	dB(A)	45
Refrigerant	Name of Refrigerant		R407C
Interconnection pipe	Larger side size	mm	ø12.7
	Coupler style		Flare
	Smaller side size	mm	ø6.4
	Coupler style		Flare
Condensate drain pipe diameter		mm	ø25.5 (OD)
Appearance colour			Grey (galvanized steel & thermal insulation)
Dimensions	Height	mm	190
	Width	mm	910
	Depth	mm	480
Net weight		kg	23
Heat exchanger type			Finned tube
Indoor fan type			Transverse flow fan
Air volume		m^3/hr	550
Fan motor output		W	7 x 2
Ceiling Panel Model			**RBC-U134PG(W)-E**
Appearance Colour			Silky white (Munsell 2.9Y8.9/0.8)
Dimensions	Height	mm	25
	Width	mm	1,050
	Depth	mm	550
Net Weight		kg	4.5
Air Filter			Washable

Specifications are subject to change without notice

1. SPECIFICATIONS

Item		Model	RAV-134TUH-1-PE		RAV-164TUH-1-PE	
Cooling capacity		kW	3.6		4.5	
Heating capacity		kW	4.2		5.0	
Power source		Phase	1		1	
		V	220-240		220-240	
		Hz	50		50	
			COOLING	HEATING	COOLING	HEATING
Power consumption		kW	2.0	2.15	2.2	2.2
Power factor		%	88	90	90	89
Running current		A	9.9	10.4	10.6	10.7
Starting current		A	60		60	
Operating noise Indoor Unit	Sound pressure (High, Med, Low)	dB(A)	40/36/34		41/37/35	
	Sound power (High)	dB(A)	48		48	
Operating noise Outdoor Unit	Sound pressure	dB(A)	50		50	
	Sound power	dB(A)	63		67	
Refrigerant	Name of Refrigerant		R407C		R407C	
	Charge Volume	kg	1.05		1.2	
	Add. Volume (20-30m)	g/m	35		35	
Refrigerant control			Capillary tube & Expansion valve		Capillary tube & Expansion valve	
Interconnection pipe	Larger side size	mm	ø12.7		ø12.7	
	Coupler style		Flare		Flare	
	Smaller side size	mm	ø6.4		ø6.4	
	Coupler style		Flare		Flare	
	Standard length	m	7.5		7.5	
	Maximum actual pipe length (of one way)	m	30		30	
	Maximum height difference If Indoor Unit higher	m	15		15	
	If Outdoor Unit higher	m	30		30	
Condensate drain pipe diameter		mm	ø25.5 (OD)		ø25.5 (OD)	
INDOOR UNIT Model			**RAV-134TUH-1-PE**		**RAV-164TUH-1-PE**	
Appearance colour			Grey (galvanized steel & thermal insulator)		Grey (galvanized steel & thermal insulator)	
Dimensions	Height	mm	190		190	
	Width	mm	910		910	
	Depth	mm	480		480	
Net weight		kg	23		23	
Heat exchanger type			Finned tube		Finned tube	
Indoor fan type			Transverse flow fan		Transverse flow fan	
Air volume		m^3/h	700		750	
Fan motor output		W	7 x 2		7 x 2	
OUTDOOR UNIT Model			**RAV-134AH-PE**		**RAV-164AH-PE**	
Appearance colour			Silky Shade (RAL 1013)		Silky Shade (RAL 1013)	
Dimensions	Height	mm	740		740	
	Width	mm	880		880	
	Depth	mm	310		310	
Net weight		kg	61		61	
Heat exchanger type			Finned tube		Finned tube	
Outdoor fan type			Propeller fan		Propeller fan	
Air flow volume		m^3/h	2,700		2,700	
Fan motor output		W	39		39	
Compressor	Model		PG330X3F-4LS		PG350X3F-4LS	
	Output	kW	1.5		1.5	
Protective device			High pressure switch, fuse, crankcase heater, inner overload relay, bi-metal thermostat			
CEILING PANEL model			**RBC-U134PG(W)-E**		**RBC-U134PG(W)-E**	
Appearance colour			Silky white (Munsell 2.9Y8.9/0.8)		Silky white (Munsell 2.9Y8.9/0.8)	
Dimensions	Height	mm	25		25	
	Width	mm	1,050		1,050	
	Depth	mm	550		550	
Net weight		kg	4.5		4.5	
Air filter			Washable		Washable	

Specifications are subject to change without notice

1. SPECIFICATIONS

Item		Model	RAV-164UH-PE	
Cooling capacity		kW	4.5	
Heating capacity		kW	5.0	
Power source		Phase	1	
		V	220-240	
		Hz	50	
			COOLING	HEATING
Power consumption		kW	2.2	2.2
Power factor		%	90	89
Running current		A	10.6	10.7
Starting current		A	60	
Operating noise Indoor Unit	Sound pressure (High, Med, Low)	dB(A)	38/35/32	
	Sound power	dB(A)	43	
Operating noise Outdoor Unit	Sound pressure	dB(A)	50	
	Sound power	dB(A)	67	
Refrigerant	Name of Refrigerant		R407C	
	Charge Volume	kg	1.2	
	Add. Volume (20-30m)	g/m	35	
Refrigerant control			Capillary tube & Expansion valve	
Interconnection pipe	Larger side size	mm	ø12.7	
	Coupler style		Flare	
	Smaller side size	mm	ø6.4	
	Coupler style		Flare	
	Standard length	m	7.5	
	Maximum actual pipe length (of one way)	m	30	
	Maximum height difference If Indoor Unit higher	m	15	
	If Outdoor Unit higher	m	30	
Condensate drain pipe diameter		mm	1" BSP (male threaded connection)	
INDOOR UNIT Model			**RAV-164UH-PE**	
Appearance colour			Black (zinc galvanized steel & thermal insulator)	
Dimensions	Height	mm	259	
	Width	mm	820	
	Depth	mm	820	
Net weight		kg	25	
Heat exchanger type			Finned tube	
Indoor fan type			Centrifugal fan	
Air volume		m^3/h	1,020	
Fan motor output		W	28	
OUTDOOR UNIT Model			**RAV-164AH-PE**	
Appearance colour			Silky Shade (RAL 1013)	
Dimensions	Height	mm	740	
	Width	mm	880	
	Depth	mm	310	
Net weight		kg	61	
Heat exchanger type			Finned tube	
Outdoor fan type			Propeller fan	
Air flow volume		m^3/h	2,700	
Fan motor output		W	39	
Compressor	Model		PG350X3F-4LS	
	Output	kW	1.5	
Protective device			High pressure switch, fuse, bi-metal thermostat, crankcase heater, inner overload relay	
CEILING PANEL model			**RBC-U264PG(W)-E** **RBC-U264PGR(W)-E**	
Appearance colour			White (Munsell 1Y8.5/0.5)	
Dimensions	Height	mm	20	
	Width	mm	940	
	Depth	mm	940	
Net weight		kg	6	
Air filter			Washable	

Specifications are subject to change without notice

1. SPECIFICATIONS

Item		Model	RAV-264UH-PE		RAV-264UH-PE	
Cooling capacity		kW	7.1		7.1	
Heating capacity		kW	7.9		7.9	
Power source		Phase	1		3	
		V	220-240		380-415	
		Hz	50		50	
			COOLING	HEATING	COOLING	HEATING
Power consumption		kW	3.1	2.95	2.9	2.95
Power factor		%	90	90	85	85
Running current		A	15.0	14.2	4.9	5.0
Starting current		A	80		25	
Operating noise	Sound pressure (High, Med, Low)	dB(A)	43/39/35		43/39/35	
Indoor Unit	Sound power (High)	dB(A)	49		49	
Operating noise	Sound pressure	dB(A)	50		50	
Outdoor Unit	Sound power	dB(A)	67		67	
Refrigerant	Name of Refrigerant		R407C		R407C	
	Charge Volume	kg	1.9		1.9	
	Add. Volume (20-30m)	g/m	35		35	
Refrigerant control			Capillary tube & Expansion valve		Capillary tube & Expansion valve	
Interconnection pipe	Larger side size	mm	ø15.9		ø15.9	
	Coupler style		Flare		Flare	
	Smaller side size	mm	ø9.5		ø9.5	
	Coupler style		Flare		Flare	
	Standard length	m	7.5		7.5	
	Maximum actual pipe length (of one way)	m	30		30	
	Maximum height difference If Indoor Unit higher	m	15		15	
	If Outdoor Unit higher	m	30		30	
Condensate drain pipe diameter		mm	1" BSP (male threaded connection)		1" BSP (male threaded connection)	
INDOOR UNIT Model			**RAV-264UH-PE**		**RAV-264UH-PE**	
Appearance colour			Black (zinc galvanized steel & thermal insulator)		Black (zinc galvanized steel & thermal insulator)	
Dimensions	Height	mm	259		259	
	Width	mm	820		820	
	Depth	mm	820		820	
Net weight		kg	25		25	
Heat exchanger type			Finned tube		Finned tube	
Indoor fan type			Centrifugal fan		Centrifugal fan	
Air volume		m^3/h	1,260		1,260	
Fan motor output		W	28		28	
OUTDOOR UNIT Model			**RAV-264AH-PE**		**RAV-264AH8-PE**	
Appearance colour			Silky Shade (RAL 1013)		Silky Shade (RAL 1013)	
Dimensions	Height	mm	790		790	
	Width	mm	880		880	
	Depth	mm	310		310	
Net weight		kg	80		80	
Heat exchanger type			Finned tube		Finned tube	
Outdoor fan type			Propeller fan		Propeller fan	
Air flow volume		m^3/h	3,000		3,000	
Fan motor output		W	63		63	
Compressor	Model		PG460X3F-4MS		YG460X3F-MS	
	Output	kW	2.2		2.2	
Protective device			High pressure switch, fuse, crankcase heater, inner overload relay, bi-metal thermostat		High pressure switch, fuse, crankcase heater, overcurrent relay, thermostat, reverse phase protector	
CEILING PANEL model			**RBC-U264PG(W)-E RBC-U264PGR(W)-E**		**RBC-U264PG(W)-E RBC-U264PGR(W)-E**	
Appearance colour			White (Munsell 1Y8.5/0.5)		White (Munsell 1Y8.5/0.5)	
Dimensions	Height		20		20	
	Width	mm	940		940	
	Depth	mm	940		940	
Net weight		mm	6		6	
Air filter		kg	Washable		Washable	

Specifications are subject to change without notice

1. SPECIFICATIONS

Item		Model	RAV-364UH-PE	
Cooling capacity		kW	10.0	
Heating capacity		kW	10.8	
Power source		Phase	3	
		V	380-415	
		Hz	50	
			COOLING	HEATING
Power consumption		kW	4.2	3.9
Power factor		%	87	85
Running current		A	7.0	6.6
Starting current		A	42	
Operating noise	Sound pressure (High, Med, Low)	dB(A)	42/40/37	
Indoor Unit	Sound power (High)	dB(A)	49	
Operating noise	Sound pressure	dB(A)	55	
Outdoor Unit	Sound power	dB(A)	71	
Refrigerant	Name of Refrigerant		R407C	
	Charge Volume	kg	2.6	
	Add. Volume (20-50m)	g/m	35	
Refrigerant control			Capillary tube & Expansion valve	
Interconnection pipe	Larger side size*	mm	ø19 (ø22)	
	Coupler style		Flare	
	Smaller side size	mm	ø9.5	
	Coupler style		Flare	
	Standard length	m	7.5	
	Maximum actual pipe length (of one way)	m	50	
	Maximum height difference If Indoor Unit higher	m	20	
	If Outdoor Unit higher	m	50	
Condensate drain pipe diameter		mm	1" BSP (male threaded connection)	
INDOOR UNIT Model			**RAV-364UH-PE**	
Appearance colour			Black (zinc galvanized steel & thermal insulator)	
Dimensions	Height	mm	309	
	Width	mm	1,230	
	Depth	mm	820	
Net weight		kg	43	
Heat exchanger type			Finned tube	
Indoor fan type			Centrifugal fan	
Air volume		m³/h	1,750	
Fan motor output		W	36	
OUTDOOR UNIT Model			**RAV-364AH8-1-PE**	
Appearance colour			Silky Shade (RAL 1013)	
Dimensions	Height	mm	1,240	
	Width	mm	930	
	Depth	mm	385	
Net weight		kg	98	
Heat exchanger type			Finned tube	
Outdoor fan type			Propeller fan	
Air flow volume		m³/h	6,000	
Fan motor output		W	39 + 63	
Compressor	Model		ZR48K3E-TFD-522	
	Output	kW	3.6	
Protective device			High pressure switch, fuse, reverse phase protector, crankcase heater, inner overload relay, delivery temperature sensor. Bimetal Themostat	
CEILING PANEL model			**RBC-U464PG(W)-E RBC-U464PGR(W)-E**	
Appearance colour			White (Munsell 1Y8.5/0.5)	
Dimensions	Height	m	20	
	Width	mm	1,350	
	Depth	mm	940	
Net weight		kg	8	
Air filter			Washable	

**(ø22) should be used when length of pipe exceeds 30m*
Specifications are subject to change without notice

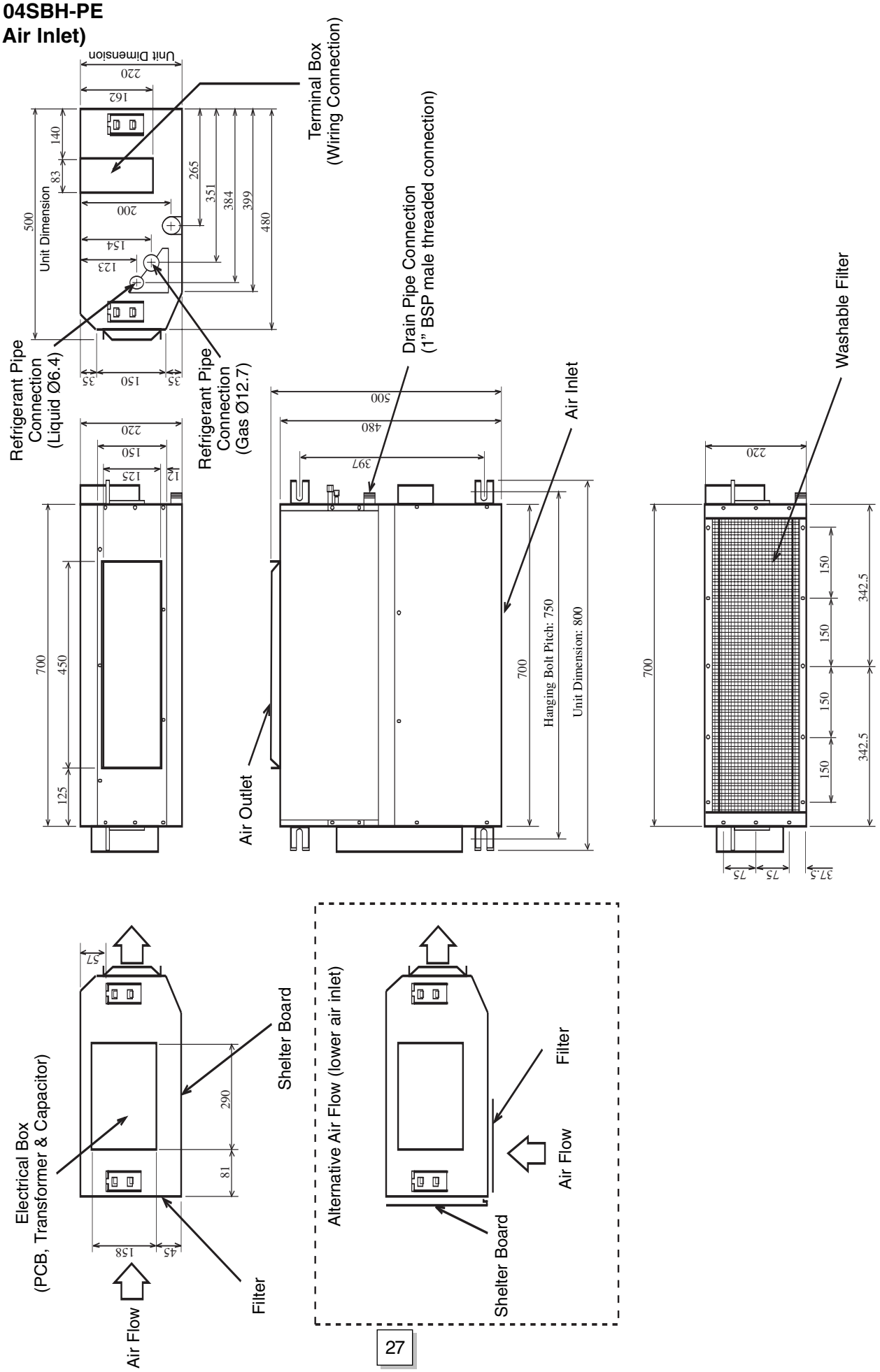
1. SPECIFICATIONS

Item		Model	RAV-364UH-PE		RAV-464UH-PE	
Cooling capacity		kW	10.0		12.5	
Heating capacity		kW	10.8		13.8	
Power source		Phase	3		3	
		V	380-415		380-415	
		Hz	50		50	
			COOLING	HEATING	COOLING	HEATING
Power consumption		kW	4.2	3.9	5.15	5.4
Power factor		%	87	85	87	85
Running current		A	7.0	6.6	8.5	9.2
Starting current		A	42		50	
Operating noise Indoor Unit	Sound pressure (High, Med, Low)	dB(A)	42/40/37		45/43/40	
	Sound power (High)	dB(A)	52		52	
Operating noise Outdoor Unit	Sound pressure	dB(A)	55		55	
	Sound power	dB(A)	71		71	
Refrigerant	Name of Refrigerant		R407C		R407C	
	Charge Volume	kg	2.7		3.5	
	Add. Volume (20-50m)	g/m	35		50	
Refrigerant control			Capillary tube & Expansion valve		Capillary tube & Expansion valve	
Interconnection pipe	Larger side size*	mm	ø19 (ø22)		ø19 (ø22)	
	Coupler style		Flare		Flare	
	Smaller side size	mm	ø9.5		ø9.5	
	Coupler style		Flare		Flare	
	Standard length	m	7.5		7.5	
	Maximum actual pipe length (of one way)	m	50		50	
	Maximum height difference If Indoor Unit higher	m	20		20	
	If Outdoor Unit higher	m	50		50	
Condensate drain pipe diameter		mm	1" BSP (male threaded connection)		1" BSP (male threaded connection)	
INDOOR UNIT Model			**RAV-364UH-PE**		**RAV-464UH-PE**	
Appearance colour			Black (zinc galvanized steel & thermal insulator)		Black (zinc galvanized steel & thermal insulator)	
Dimensions	Height	mm	309		309	
	Width	mm	1,230		1,230	
	Depth	mm	820		820	
Net weight		kg	43		43	
Heat exchanger type			Finned tube		Finned tube	
Indoor fan type			Centrifugal fan		Centrifugal fan	
Air volume		m^3/h	1,750		1,820	
Fan motor output		W	36		36	
OUTDOOR UNIT Model			**RAV-364AH8-PE**		**RAV-464AH8-PE**	
Appearance colour			Silky Shade (RAL 1013)		Silky Shade (RAL 1013)	
Dimensions	Height	mm	1,240		1,240	
	Width	mm	930		930	
	Depth	mm	385		385	
Net weight		kg	103		118	
Heat exchanger type			Finned tube		Finned tube	
Outdoor fan type			Propeller fan		Propeller fan	
Air flow volume		m^3/h	6,000		6,000	
Fan motor output		W	39 + 63		39 + 63	
Compressor	Model		ZR49KCE-TFD-230		ZR61KCE-TFD-230	
	Output	kW	3.0		3.75	
Protective device			High pressure switch, fuse, reverse phase protector, crankcase heater, inner overload relay, delivery temperature sensor			
CEILING PANEL model			**RBC-U464PG(W)-E RBC-U464PGR(W)-E**		**RBC-U464PG(W)-E RBC-U464PGR(W)-E**	
Appearance colour			White (Munsell 1Y8.5/0.5)		White (Munsell 1Y8.5/0.5)	
Dimensions	Height	mm	20		20	
	Width	mm	1,350		1,350	
	Depth	mm	940		940	
Net weight		kg	8		8	
Air filter			Washable		Washable	

**(ø22) should be used when length of pipe exceeds 30m*
Specifications are subject to change without notice

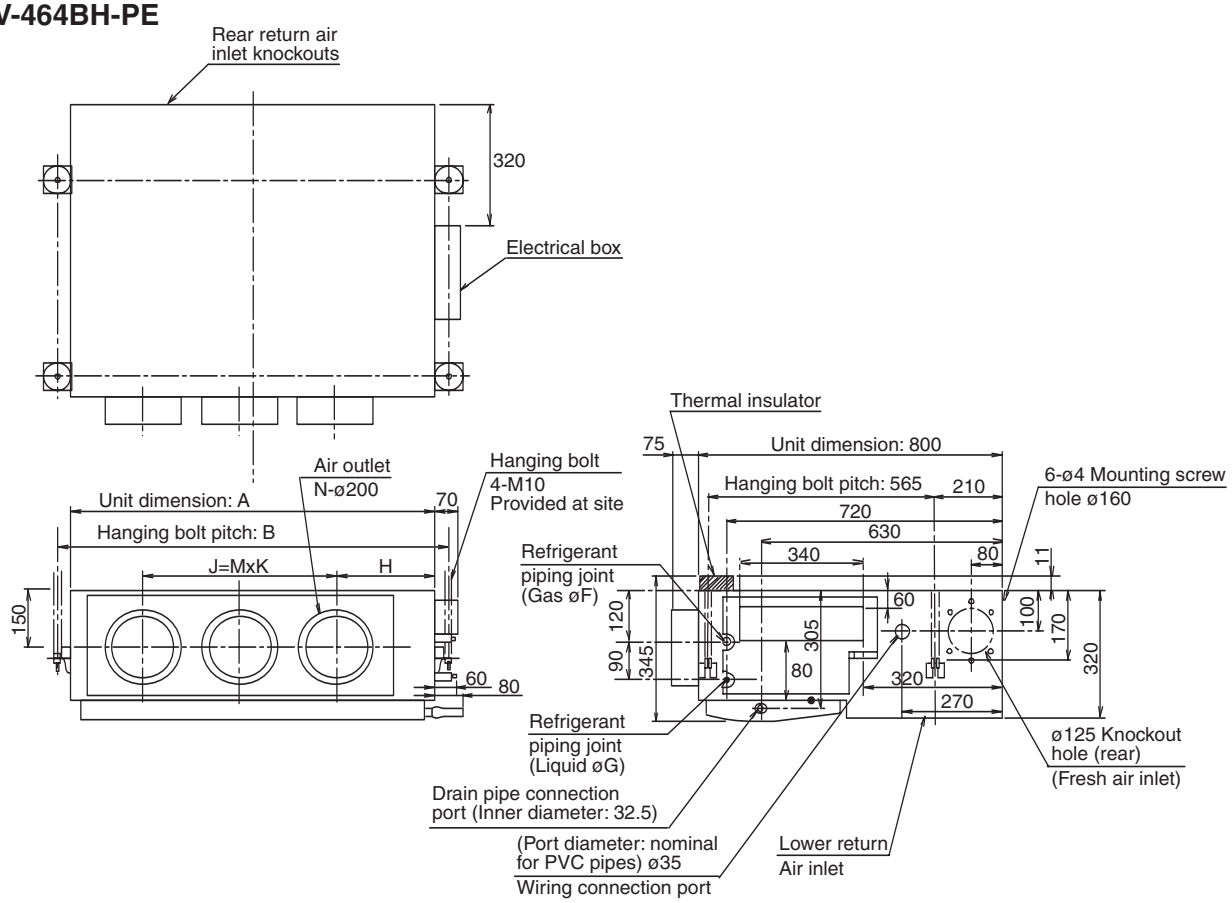
2. CONSTRUCTION VIEWS

2.1 Indoor Unit
RAV-104SBH-PE
(Rear Air Inlet)

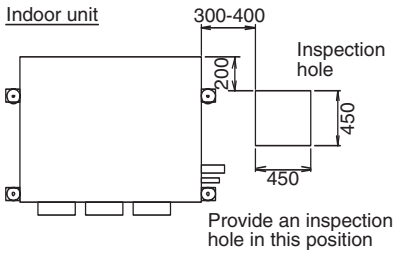


2. CONSTRUCTION VIEWS

2.2 Indoor Unit
RAV-164BH-PE
RAV-264BH-PE
RAV-364BH-PE
RAV-464BH-PE



Ensure that there is sufficient space around the indoor unit for installation and servicing

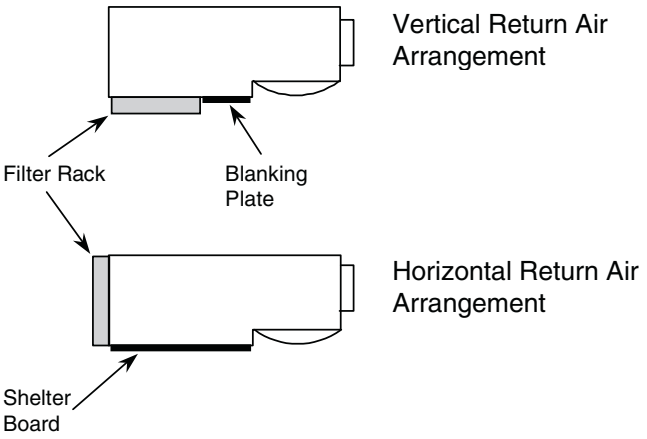


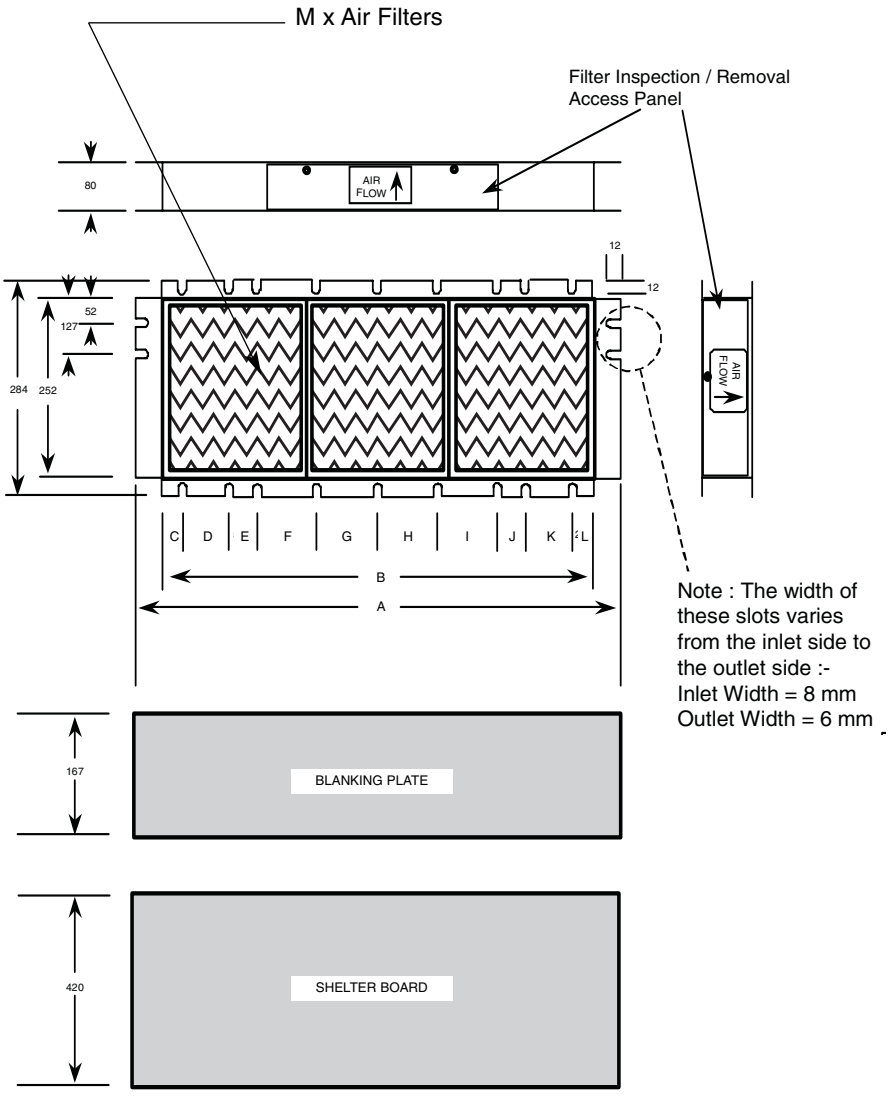
Model	A	B	F	G	H	J	K	M	N
RAV-164BH-PE	700	750	12.7	6.4	252	280	280	1	2
RAV-264BH-PE	1000	1050	15.9	9.5	252	580	290	2	3
RAV-364BH-PE	1350	1400	19.0	9.5	252	930	310	3	4
RAV-464BH-PE	1350	1400	19.0	9.5	252	930	310	3	4

(Unit : mm)

2. CONSTRUCTION VIEWS

2.3 Indoor Unit Accessory
RBC-RK162BE-PE
RBC-RK262BE-PE
RBC-RK462BE-PE





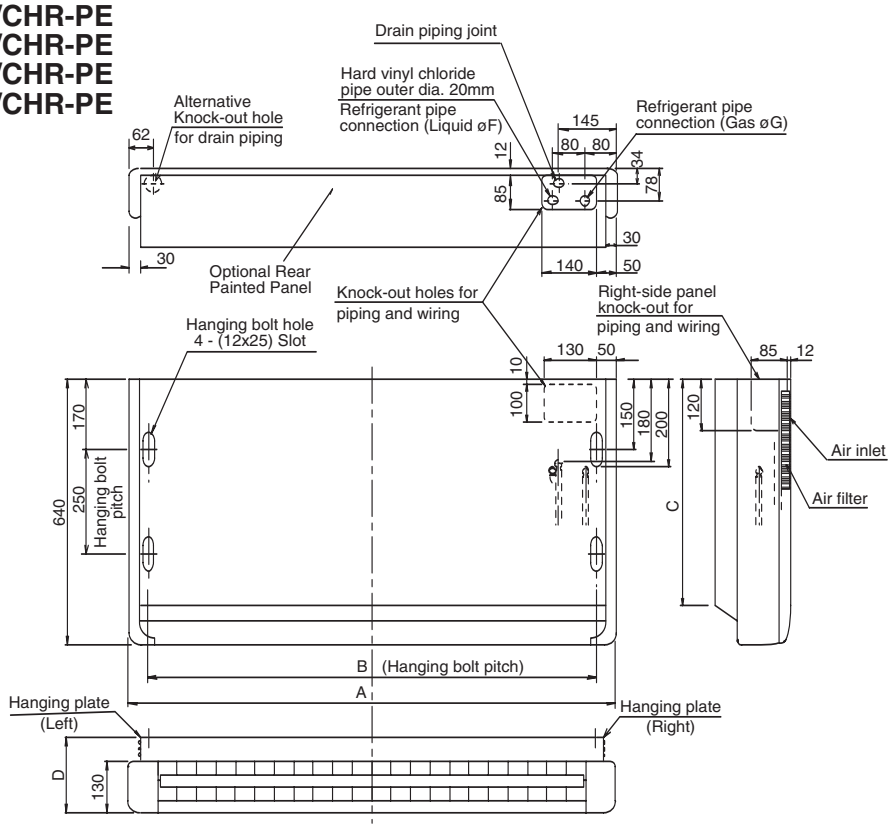
Model	A	B	C	D	E	F	G	H	I	J	K	L	M	Air Filter	Shelter Board
RBC-RK162BE-PE	695	624	–	12	100	50	150	150	50	100	12	–	2	43A80004	43A80010
RBC-RK262BE-PE	1000	944	22	100	50	150	150	150	150	50	100	22	3	43A80004	43A80011
RBC-RK462BE-PE	1350	1275	37.5	75	70	155	300	300	155	70	75	37.5	2	43A80005	43A80012

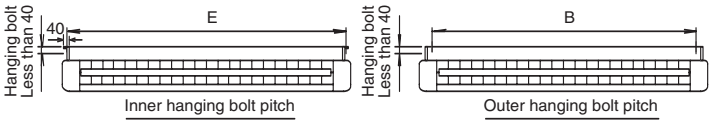
(unit : mm)

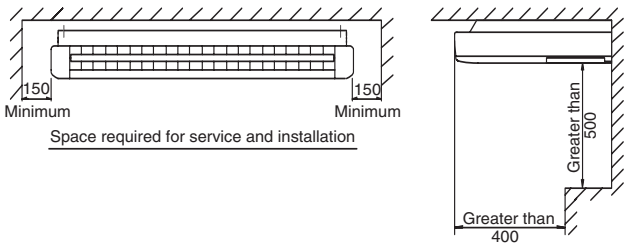
2. CONSTRUCTION VIEWS

2.4 Indoor Unit

RAV-134CH/CHR-PE
RAV-164CH/CHR-PE
RAV-264CH/CHR-PE
RAV-364CH/CHR-PE
RAV-464CH/CHR-PE





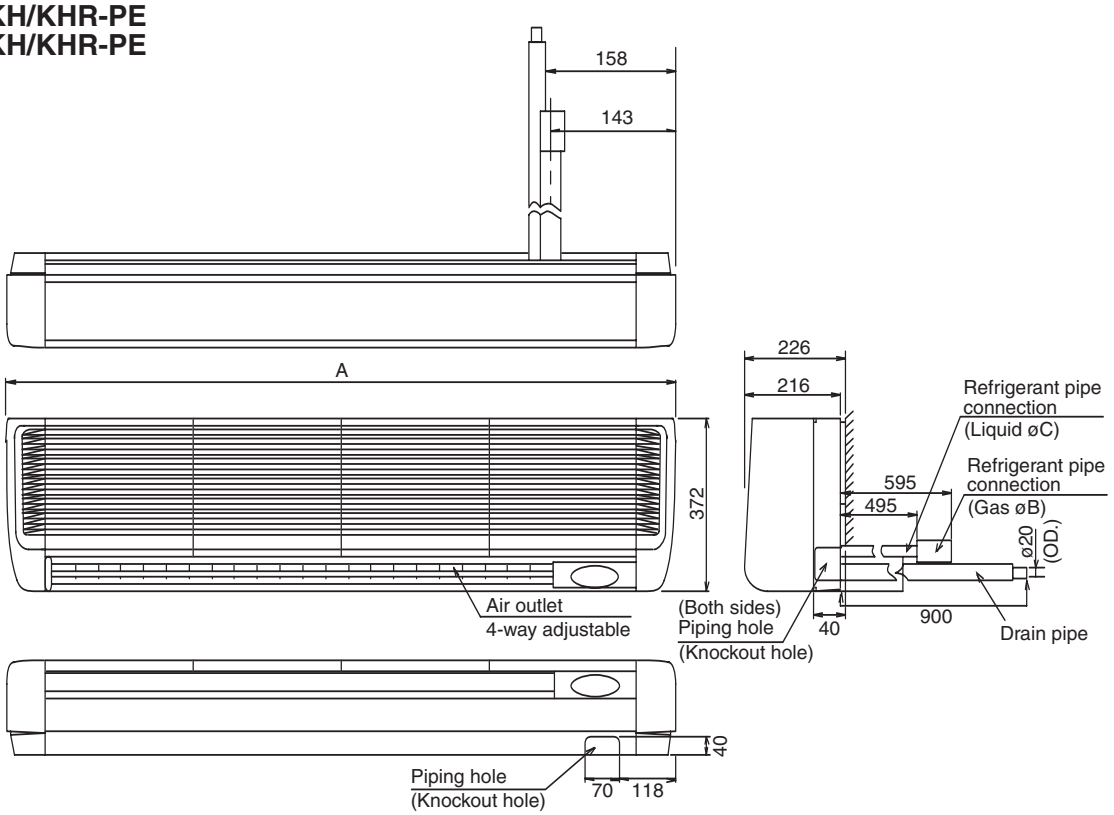


Model	A	B	C	D	E	F	G	Optional Panel
RAV-134CH/CHR-PE	1,030	920	540	188	1,020	6.4	12.7	43A01001
RAV-164CH/CHR-PE	1,030	920	540	188	1,020	6.4	12.7	43A01001
RAV-264CH/CHR-PE	1,230	1,120	540	188	1,220	9.5	15.9	43A01002
RAV-364CH/CHR-PE	1,430	1,320	550	240	1,420	9.5	19.0	43A01003
RAV-464CH/CHR-PE	1,630	1,520	550	240	1,620	9.5	19.0	43A01004

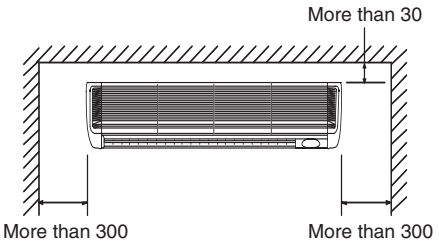
(unit : mm)

2. CONSTRUCTION VIEWS

2.5 Indoor Unit
RAV-134KH/KHR-PE
RAV-164KH/KHR-PE
RAV-264KH/KHR-PE



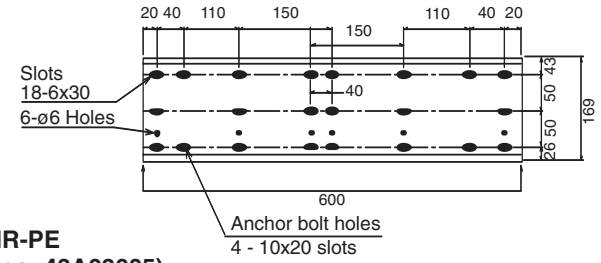
MODEL	A	B	C
RAV-134KH/KHR-PE	1150	12.7	6.4
RAV-164KH/KHR-PE	1150	12.7	6.4
RAV-264KH/KHR-PE	1478	15.9	9.5



Space required for service

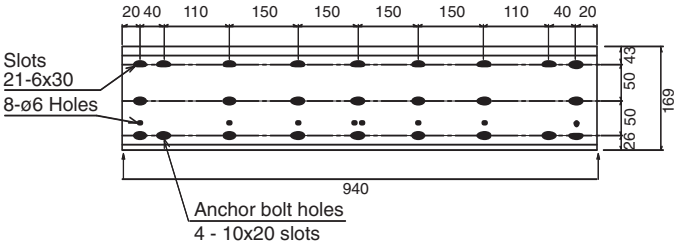
Installation board mounting bolt hole location

RAV-134KH/KHR-PE
RAV-164KH/KHR-PE
(Service Part nos: 43A03006)



(unit : mm)

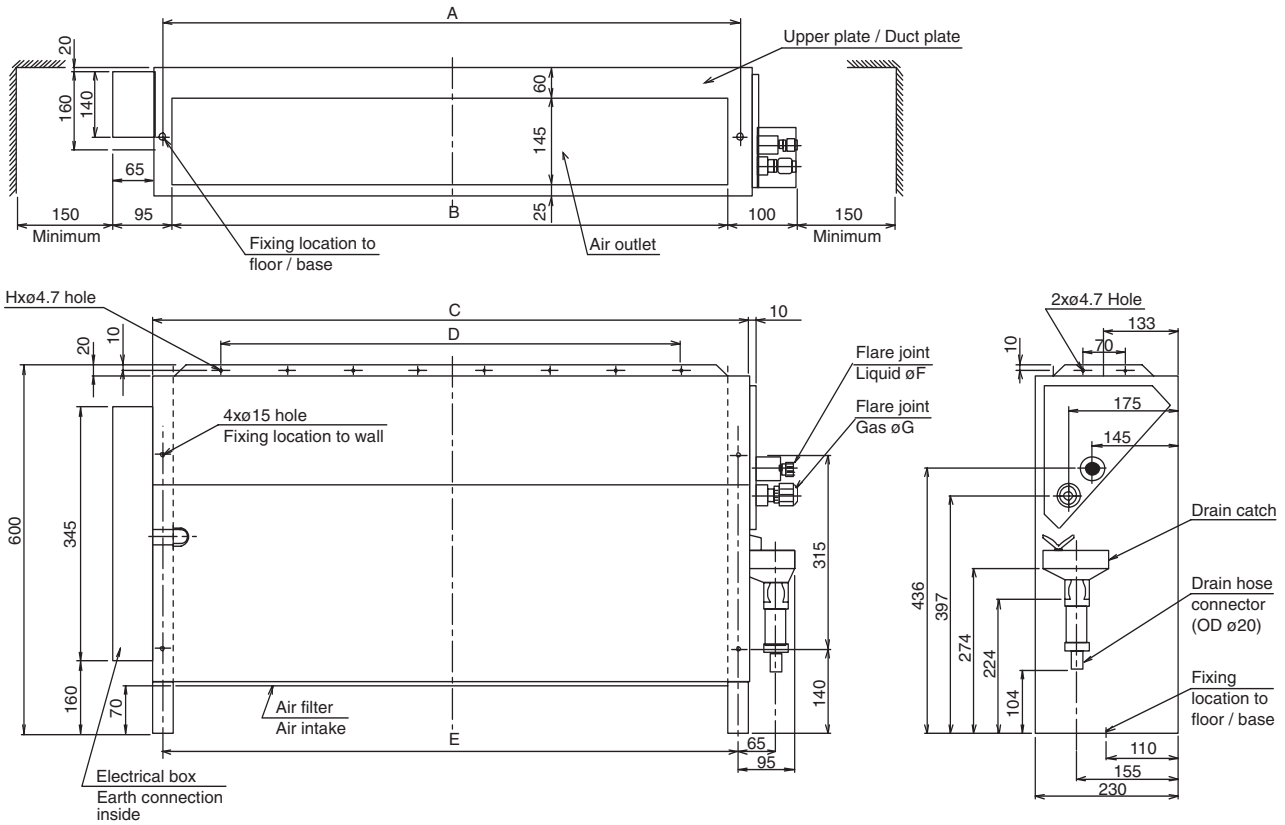
RAV-264KH/KHR-PE
(Service Part nos: 43A03005)



2. CONSTRUCTION VIEWS

2.6 Indoor Unit
RAV-104NH-PE
RAV-134NH-PE
RAV-164NH-PE
RAV-264NH-PE

Space required for service and installation

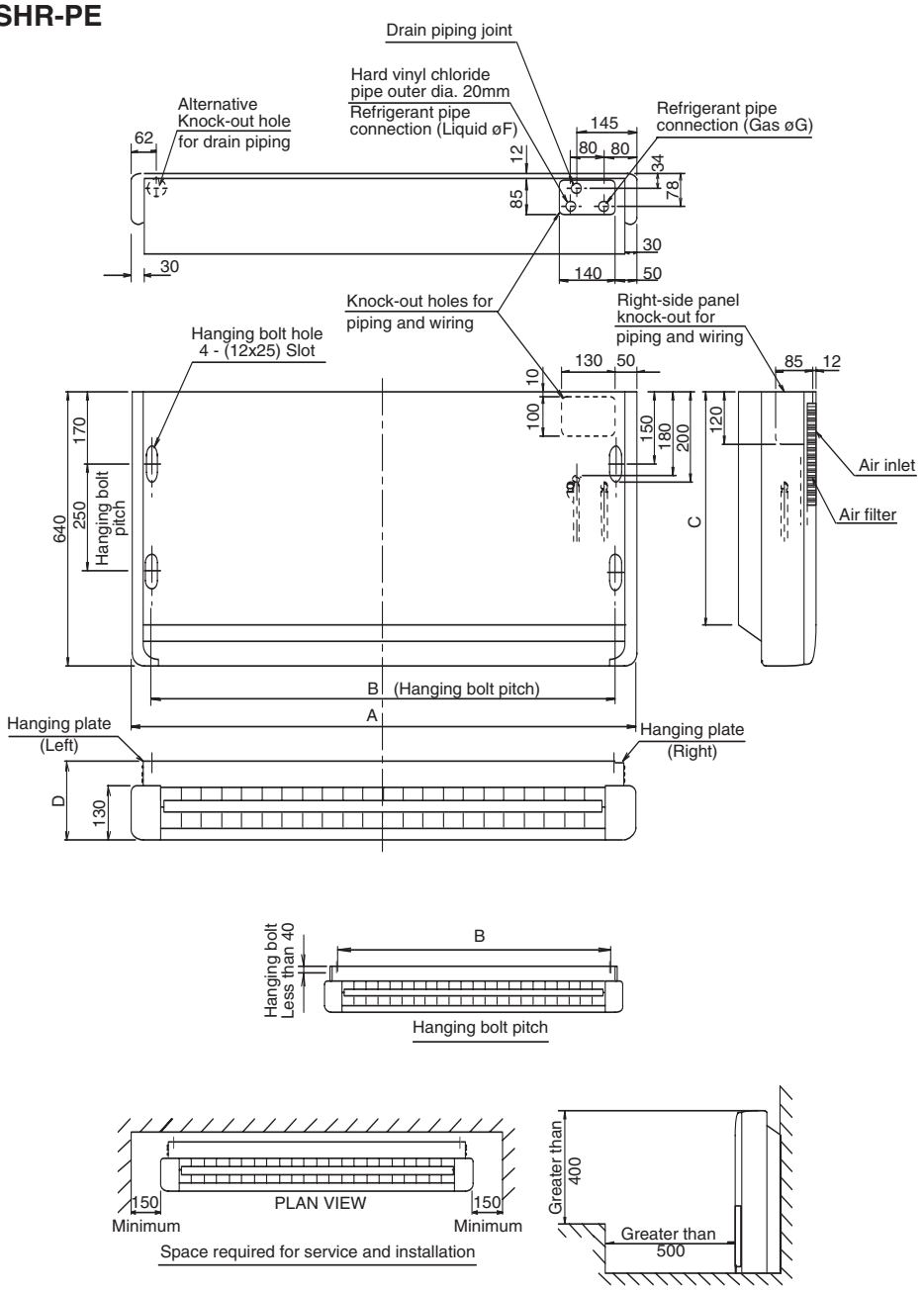


Model	A	B	C	D	E	øF	øG	H
RAV-104NH-PE	580	550	610	4x100	580	6.4	12.7	5
RAV-134NH-PE RAV-164NH-PE RAV-264NH-PE	880	850	910	7x100	880	6.4 9.5	12.7 15.9	8

(Units : mm)

2. CONSTRUCTION VIEWS

2.7 Indoor Unit
RAV-164SH/SHR-PE
RAV-264SH/SHR-PE

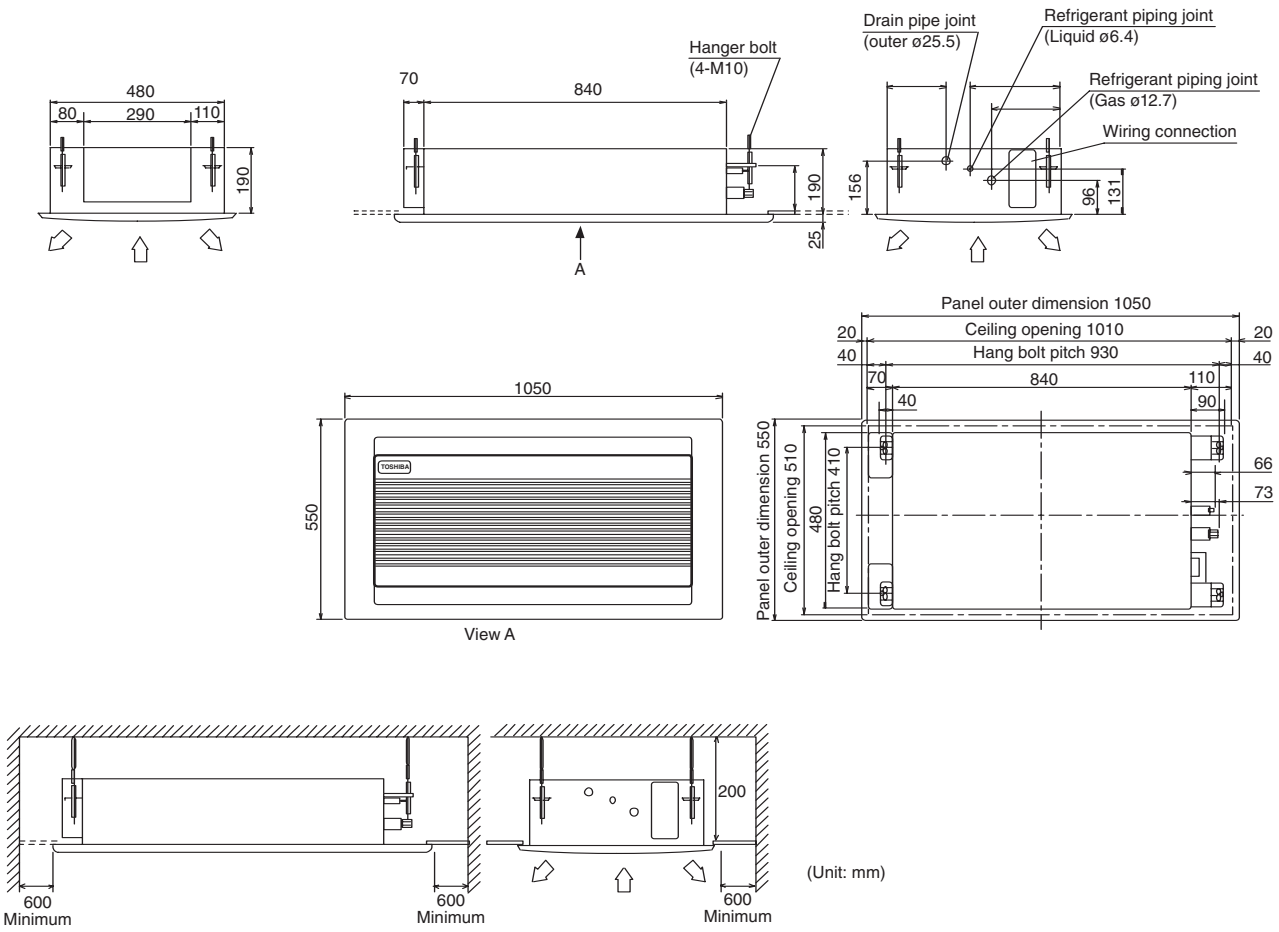


Model	A	B	C	D	F	G
RAV-164SH-PE RAV-164SHR-PE	1,030	920	540	188	6.4	12.7
RAV-264SH-PE RAV-264SHR-PE	1,230	1120	540	188	9.5	15.9

(unit : mm)

2. CONSTRUCTION VIEWS

2.8 Indoor Unit
RAV-104TUH-PE
RAV-134TUH-PE
RAV-164TUH-PE

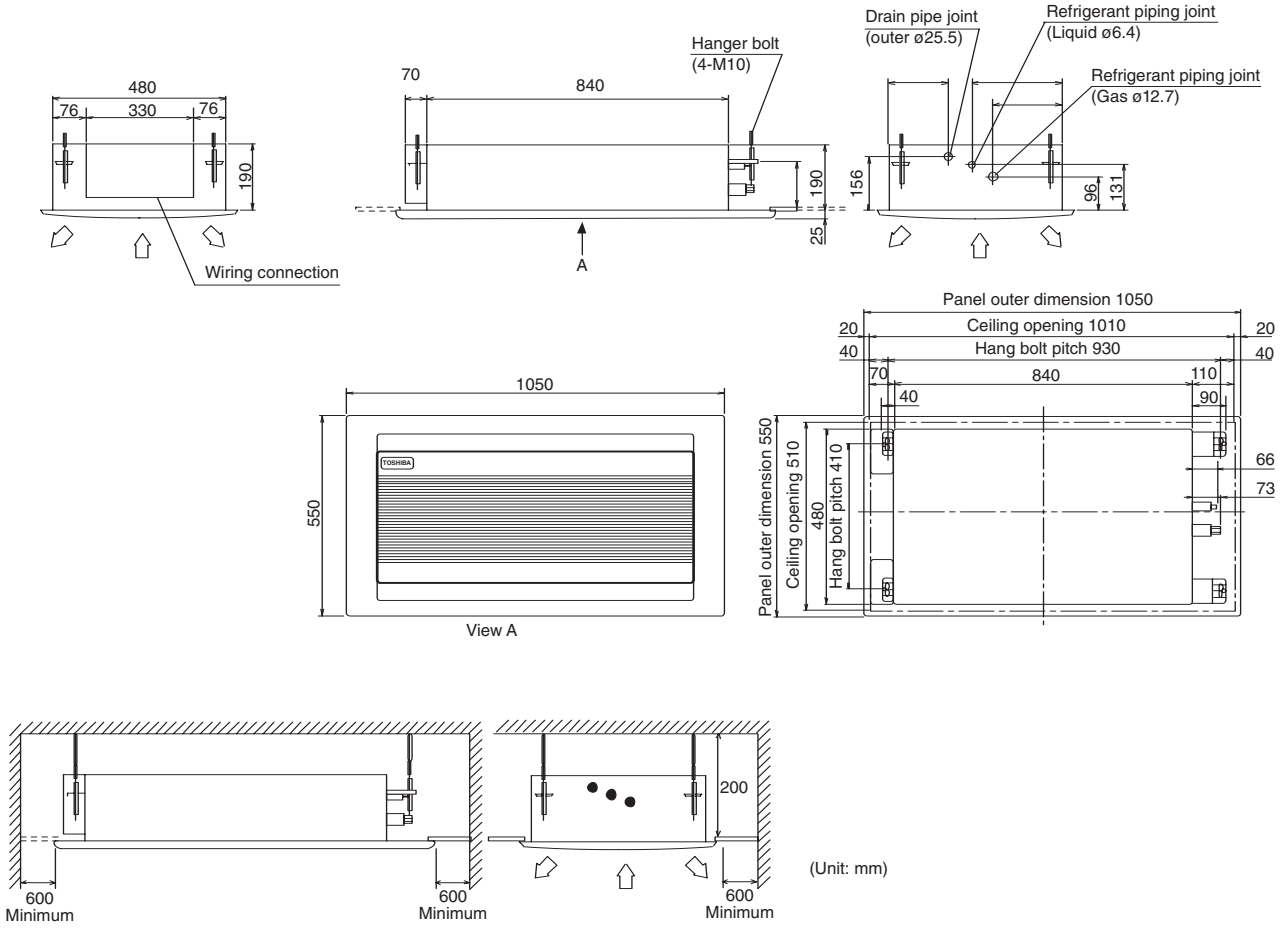


(Unit: mm)

Space required for service and installation

2. CONSTRUCTION VIEWS

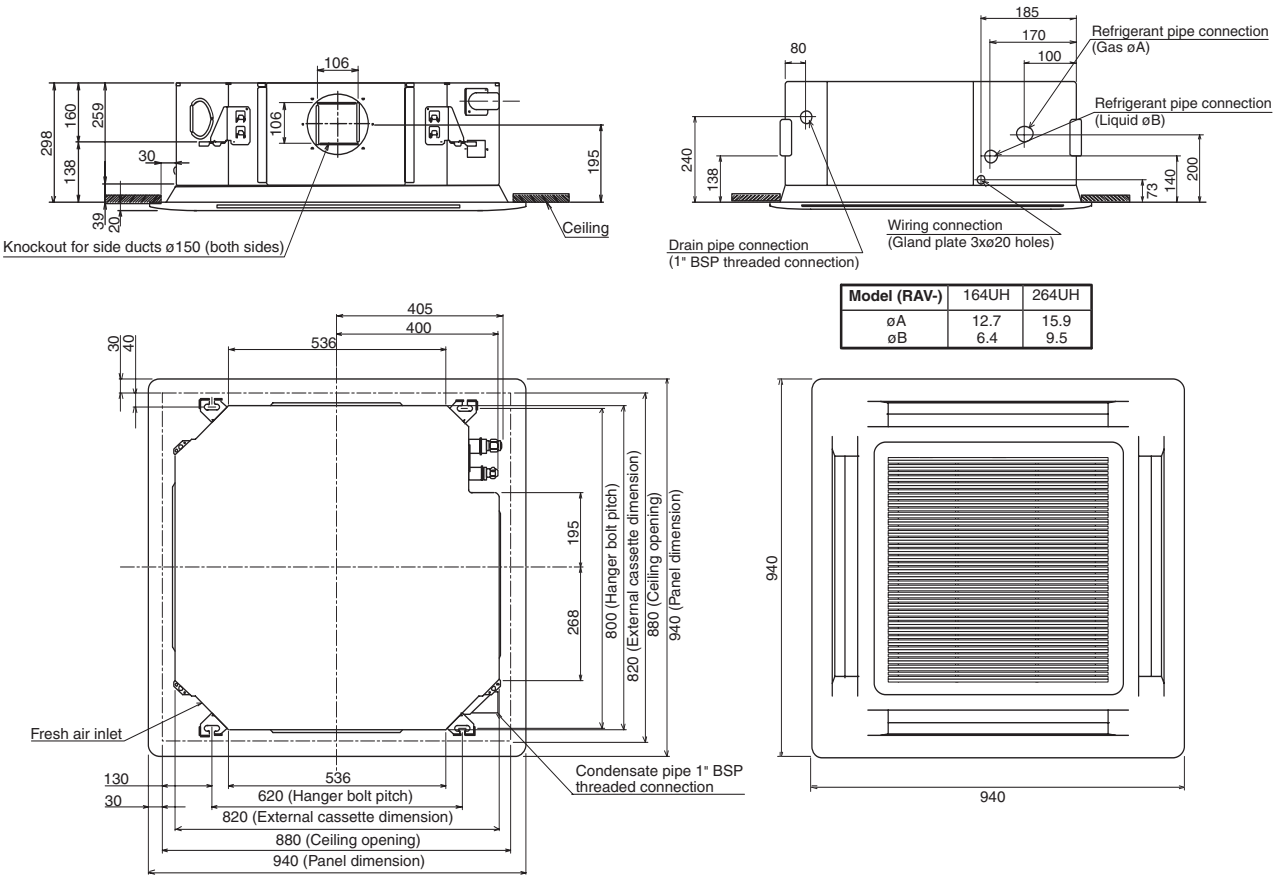
2.9 Indoor Unit
RAV-104TUH-1-PE
RAV-134TUH-1-PE
RAV-164TUH-1-PE



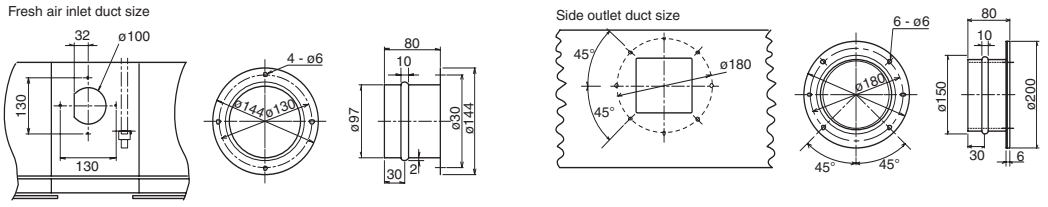
Space required for service and installation

2. CONSTRUCTION VIEWS

2.10 Indoor Unit
RAV-164UH-PE
RAV-264UH-PE

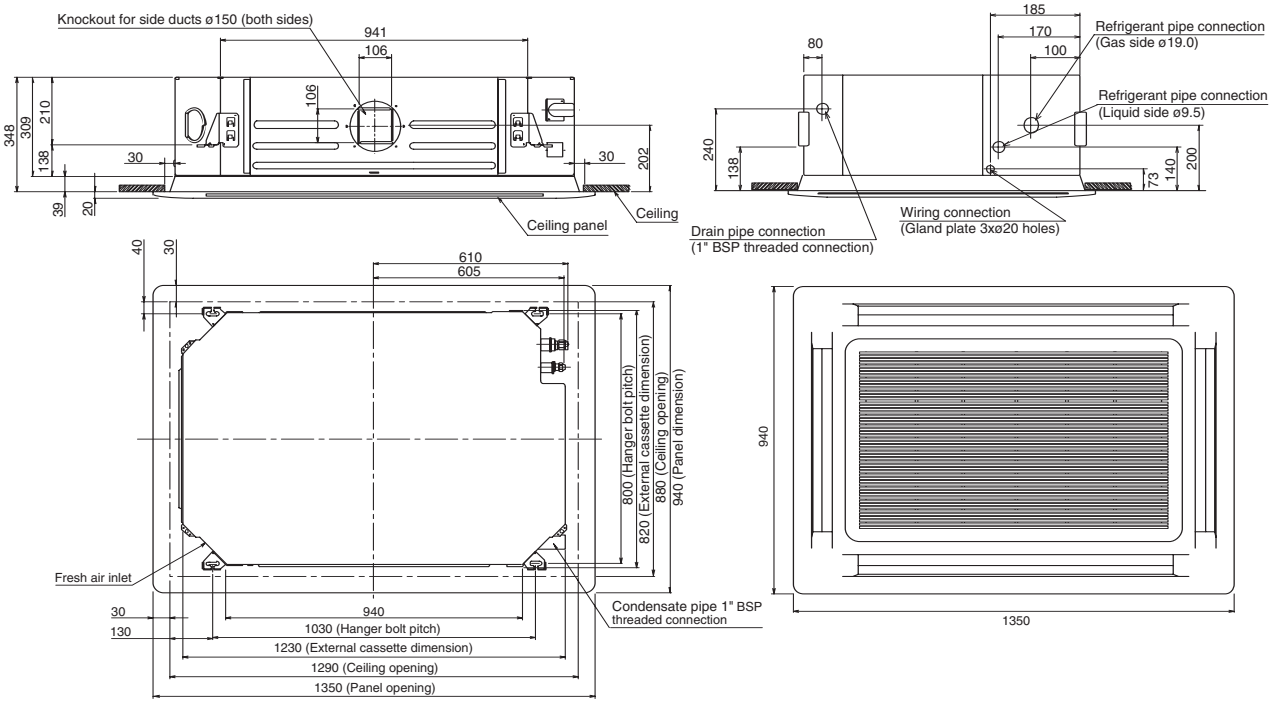


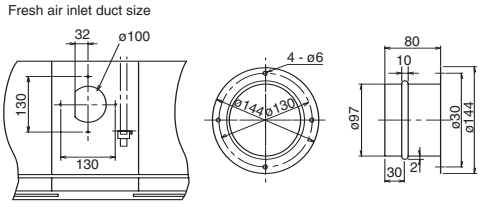
Model (RAV-)	164UH	264UH
øA	12.7	15.9
øB	6.4	9.5

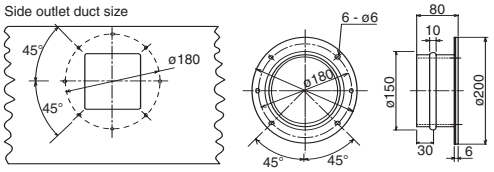


2. CONSTRUCTION VIEWS

2.11 Indoor Unit
RAV-364UH-PE
RAV-464UH-PE

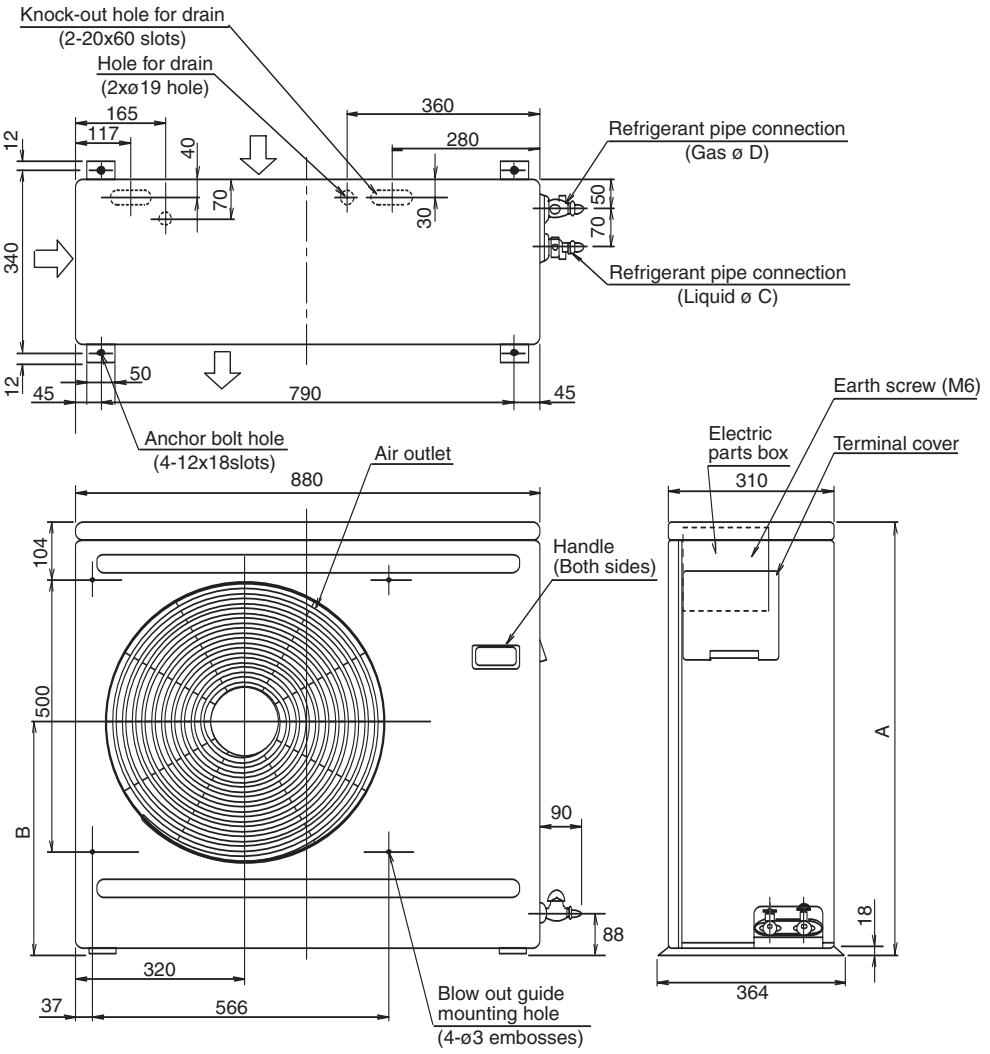




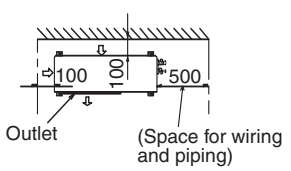


2. CONSTRUCTION VIEWS

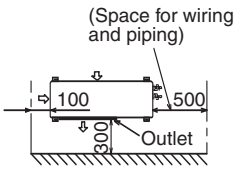
2.12 Outdoor Unit
RAV-134AH-PE
RAV-164AH-PE
RAV-264AH-PE
RAV-264AH8-PE



Space required for service



When installed with the inlet facing the wall



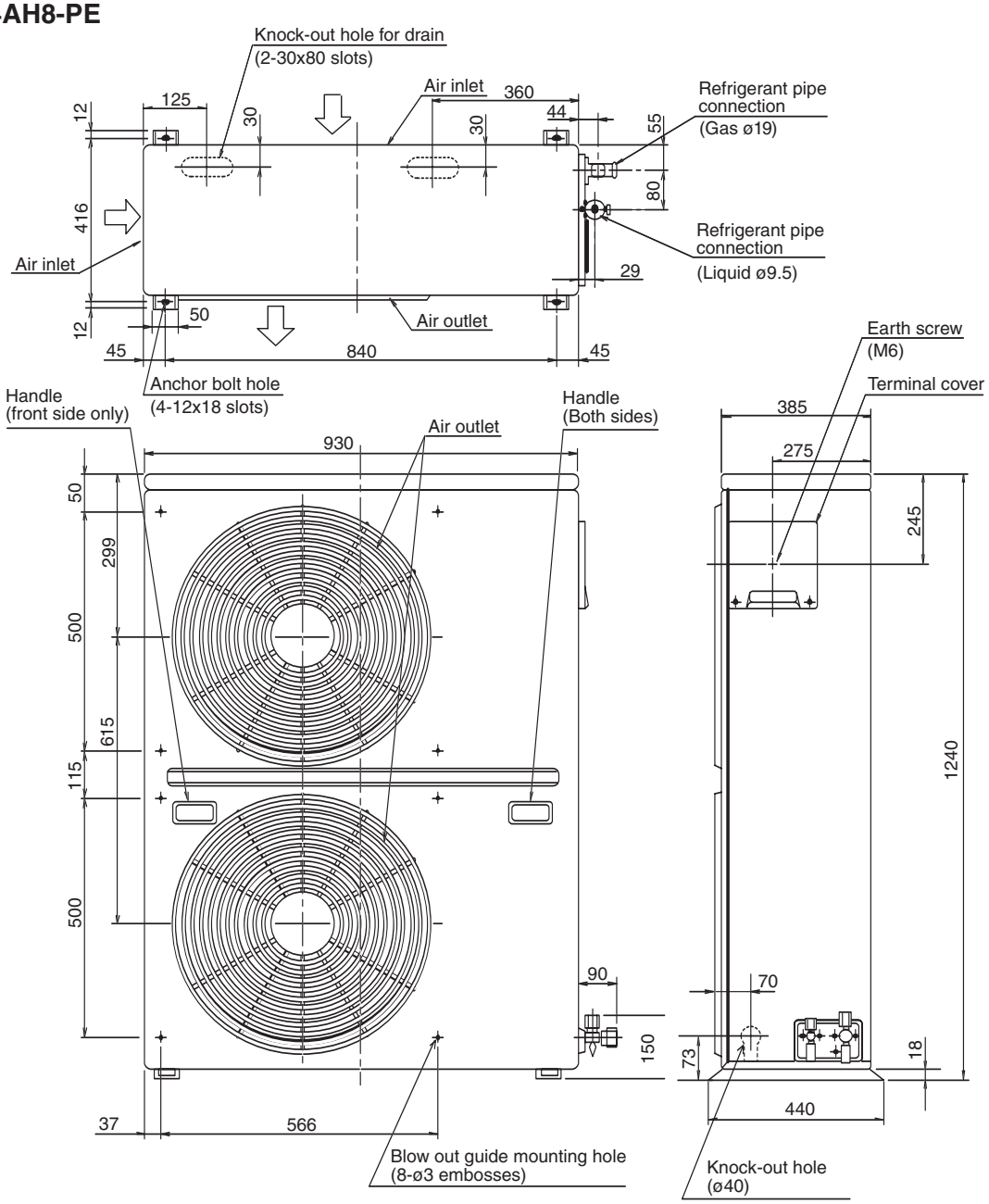
When installed with the outlet facing the wall

Model	A	B	øC	øD
RAV-134AH-PE RAV-164AH-PE	740	380	6.4	12.7
RAV-264AH-PE RAV-264AH8-PE	790	430	9.5	15.9

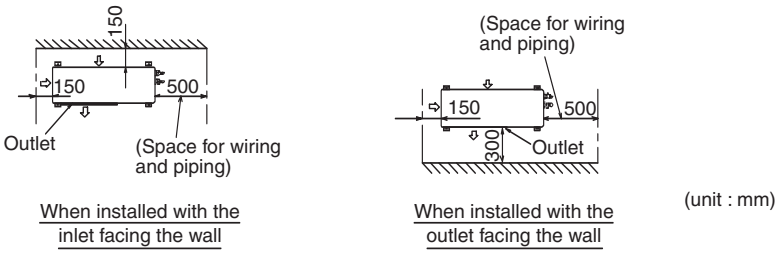
(unit : mm)

2. CONSTRUCTION VIEWS

2.13 Outdoor Unit
RAV-364AH8-PE
RAV-364AH8-1-PE
RAV-464AH8-PE



Space required for service



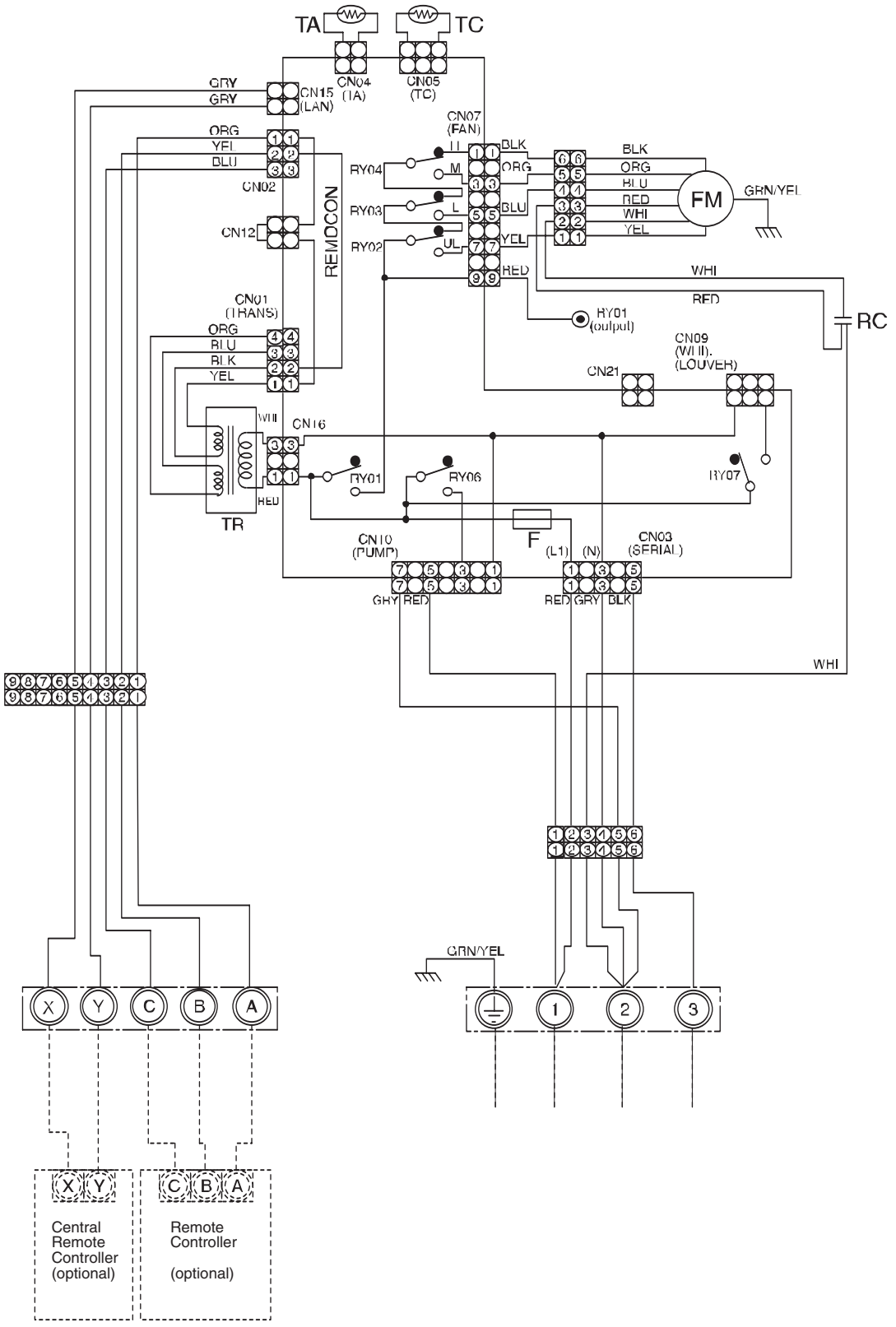
When installed with the inlet facing the wall

When installed with the outlet facing the wall

(unit : mm)

3. WIRING DIAGRAM

3.1 RAV-104SBH-PE



shows terminal block and figures show terminal numbers.

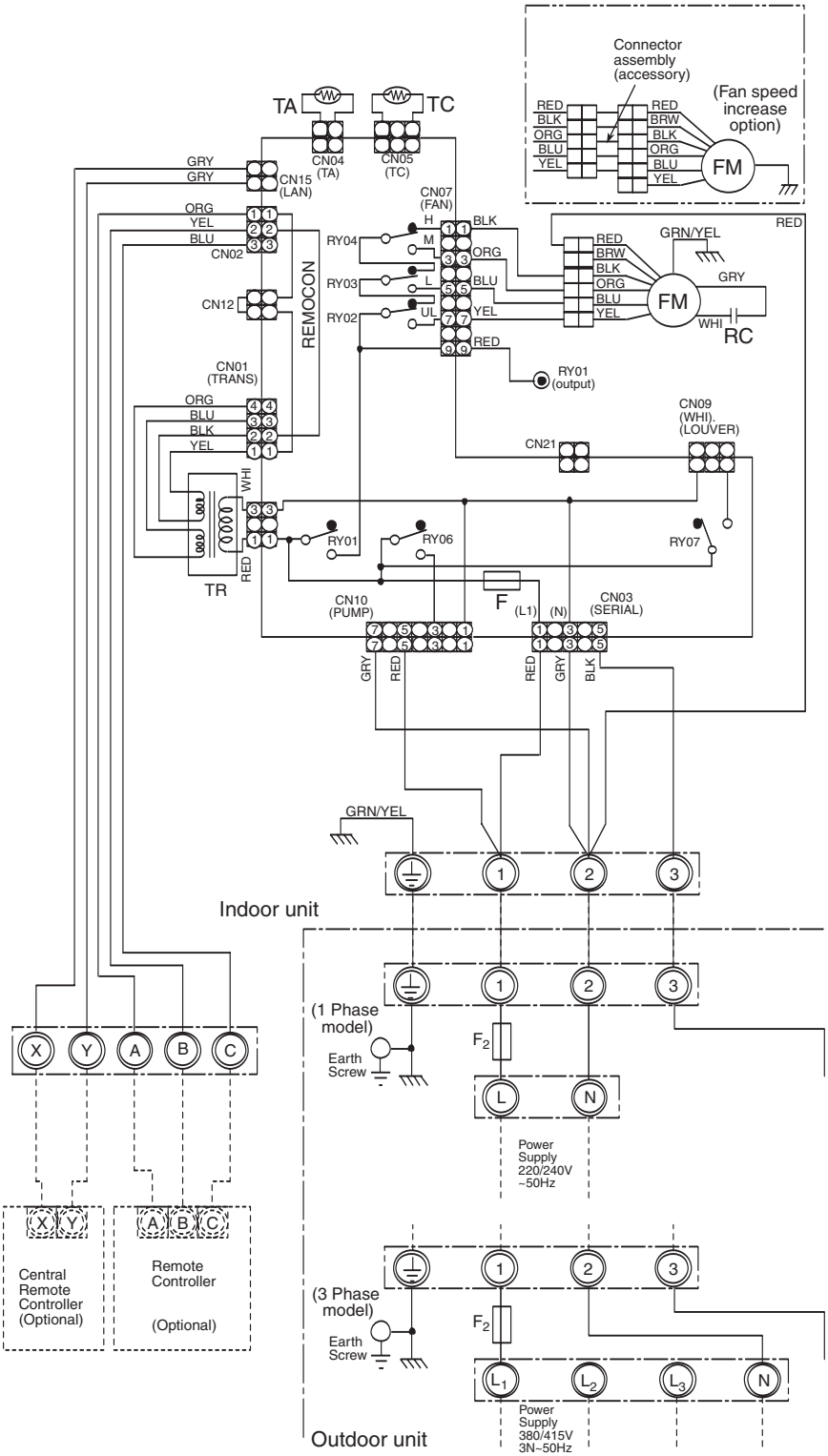
Broken lines show wiring at site.

Do not operate the units with the magentic contactor pushed in.

Symbol	Name	Symbol	Name
FM	Fan Motor	TA	Sensor – Room Temperature
RC	Running Capacitor	TC	Sensor – Heat Exchanger
TR	Transformer	RY01~RY07	Relay
F	Fuse (PCB)		

3. WIRING DIAGRAMS

3.2 RAV-164BH-PE
RAV-264BH-PE
RAV-364BH-PE
RAV-464BH-PE



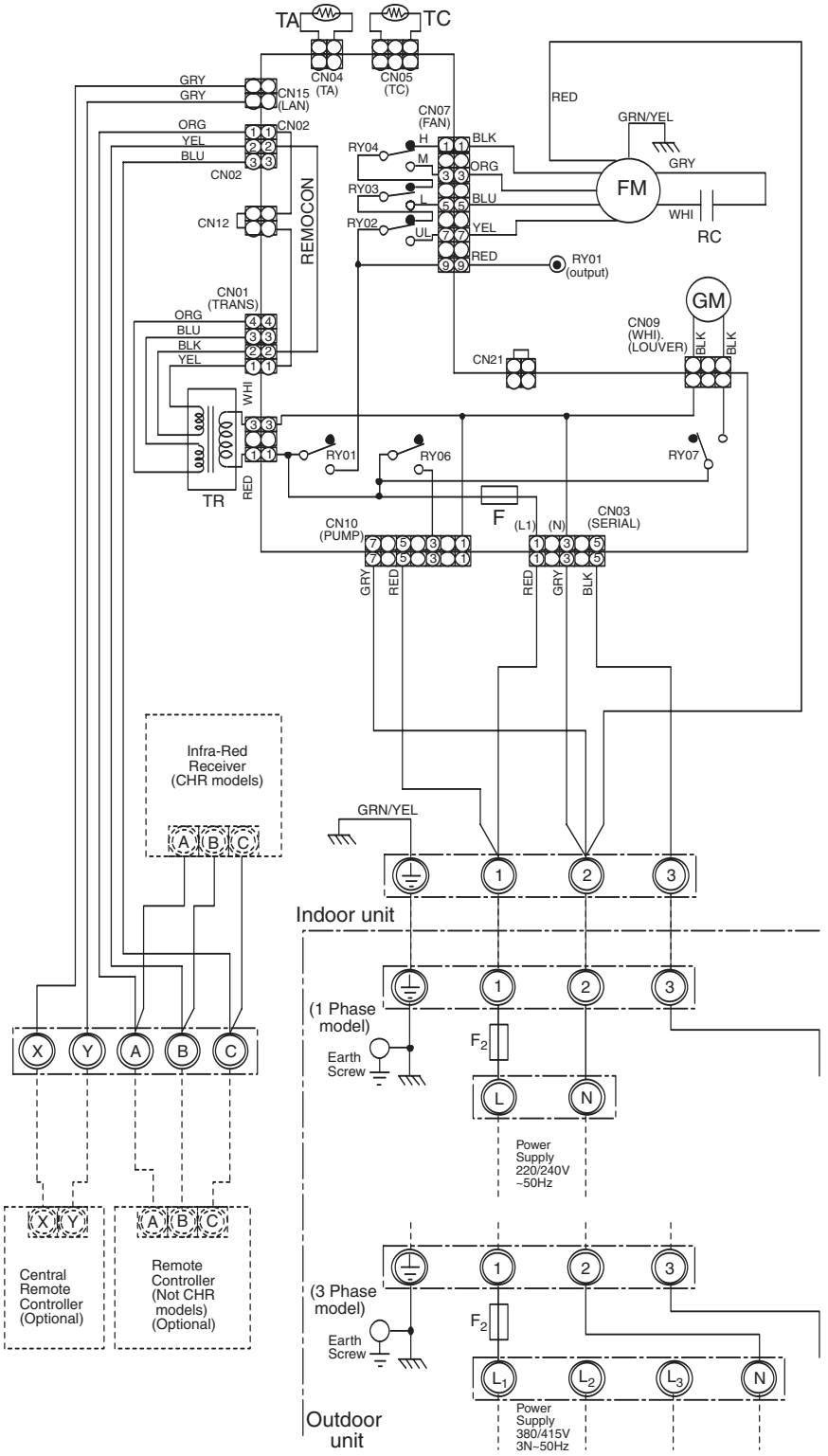
○ shows terminal block and figures show terminal numbers.
Broken lines show wiring at site.

Do not operate the units with the magnetic contactor pushed in.

Symbol	Name	Symbol	Name
FM	Fan Motor	TA	Sensor
RC	Running Capacitor	TC	Sensor
TR	Transformer	RY01~RY07	Relay
F	Fuse (PCB)		

3. WIRING DIAGRAMS

3.3 RAV-134CH/CHR-PE
RAV-164CH/CHR-PE
RAV-264CH/CHR-PE
RAV-364CH/CHR-PE
RAV-464CH/CHR-PE



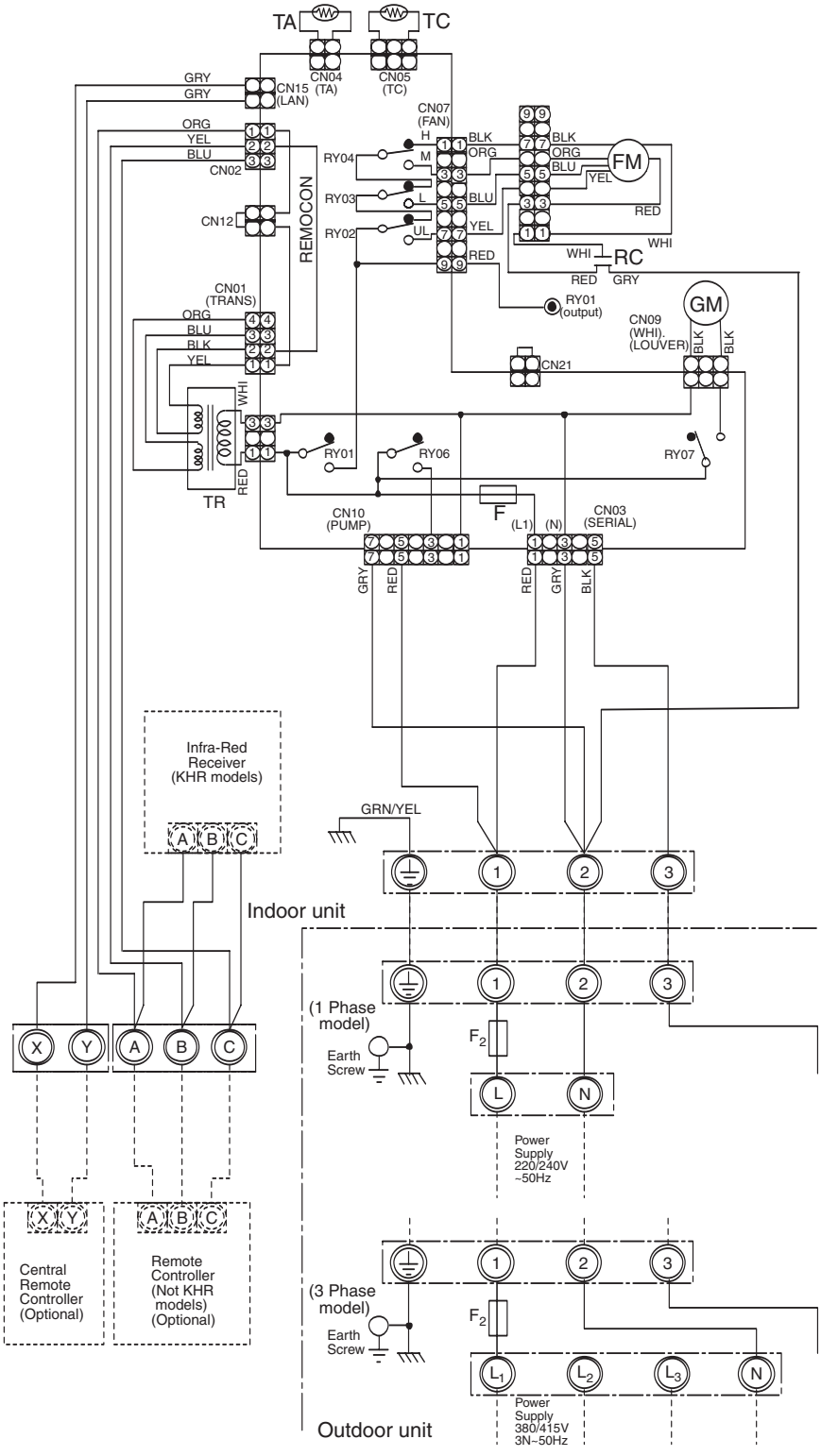
shows terminal block and figures show terminal numbers.
Broken lines show wiring at site.

Do not operate the units with the magnetic contactor pushed in.

Symbol	Name	Symbol	Name
FM	Fan Motor	TA	Sensor
RC	Running Capacitor	TC	Sensor
TR	Transformer	GM	Geared Motor
F	Fuse (PCB)	RY01~RY07	Relay

3. WIRING DIAGRAMS

3.4 RAV-134KH/KHR-PE
RAV-164KH/KHR-PE
RAV-264KH/KHR-PE



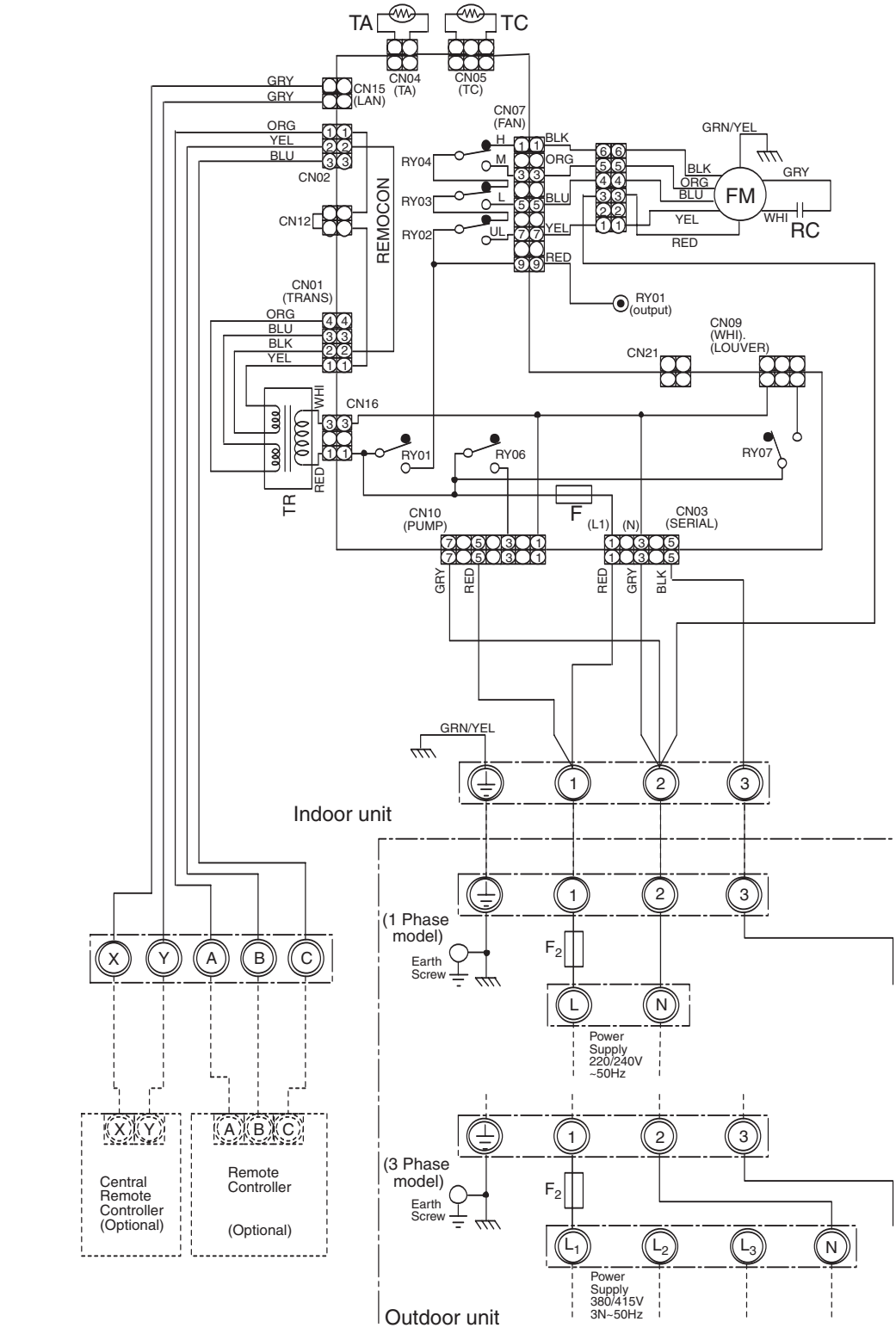
Symbol	Name	Symbol	Name
FM	Fan Motor	TA	Sensor
RC	Running Capacitor	TC	Sensor
TR	Transformer	GM	Geared Motor
F	Fuse (PCB)	RY01~RY07	Relay

◯ shows terminal block and figures show terminal numbers.
Broken lines show wiring at site.

Do not operate the units with the magnetic contactor pushed in.

3. WIRING DIAGRAMS

3.5 RAV-104NH-PE
RAV-134NH-PE
RAV-164NH-PE
RAV-264NH-PE



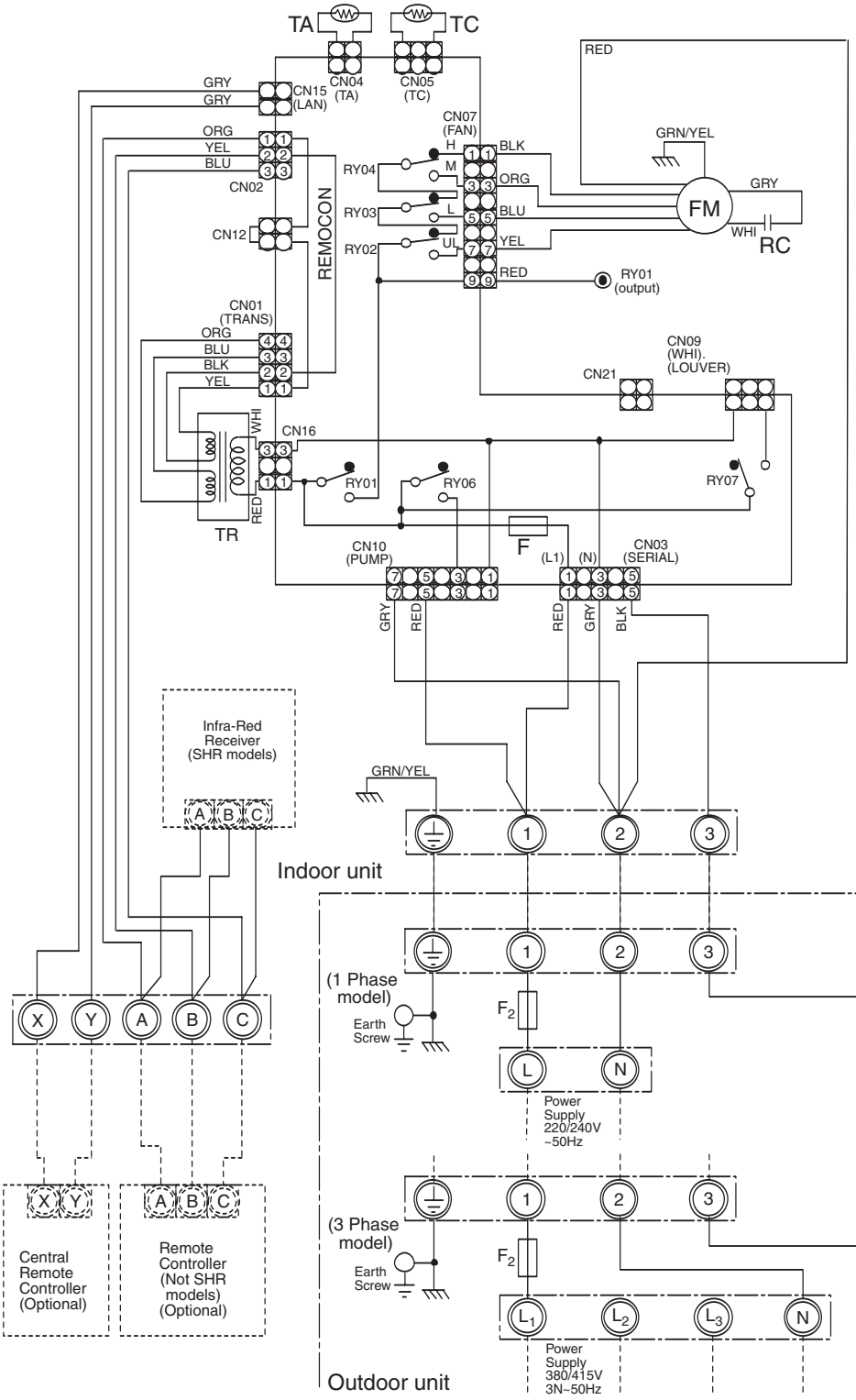
Symbol	Name	Symbol	Name
FM	Fan Motor	TA	Sensor
RC	Running Capacitor	TC	Sensor
TR	Transformer	RY01~RY07	Relay
F	Fuse (PCB)		

◯ shows terminal block and figures show terminal numbers.
Broken lines show wiring at site.

Do not operate the units with the magnetic contactor pushed in.

3. WIRING DIAGRAMS

3.6 RAV-164SH/SHR-PE
RAV-264SH/SHR-PE



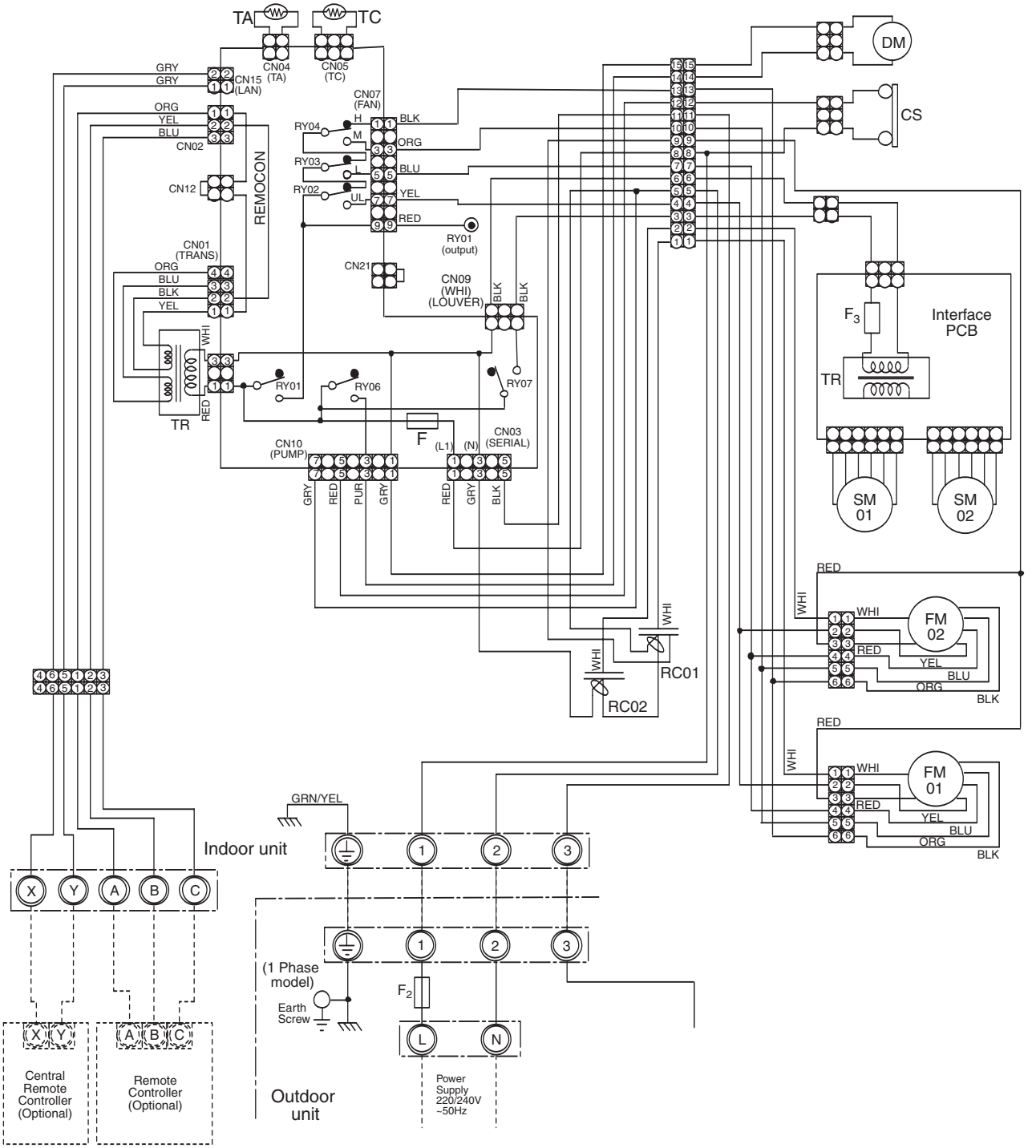
shows terminal block and figures show terminal numbers.
Broken lines show wiring at site.

Do not operate the units with the magnetic contactor pushed in.

Symbol	Name	Symbol	Name
FM	Fan Motor	TA	Sensor
RC	Running Capacitor	TC	Sensor
TR	Transformer	RY01~RY07	Relay
F	Fuse (PCB)		

3. WIRING DIAGRAMS

3.7 RAV-104TUH-PE
RAV-134TUH-PE
RAV-164TUH-PE



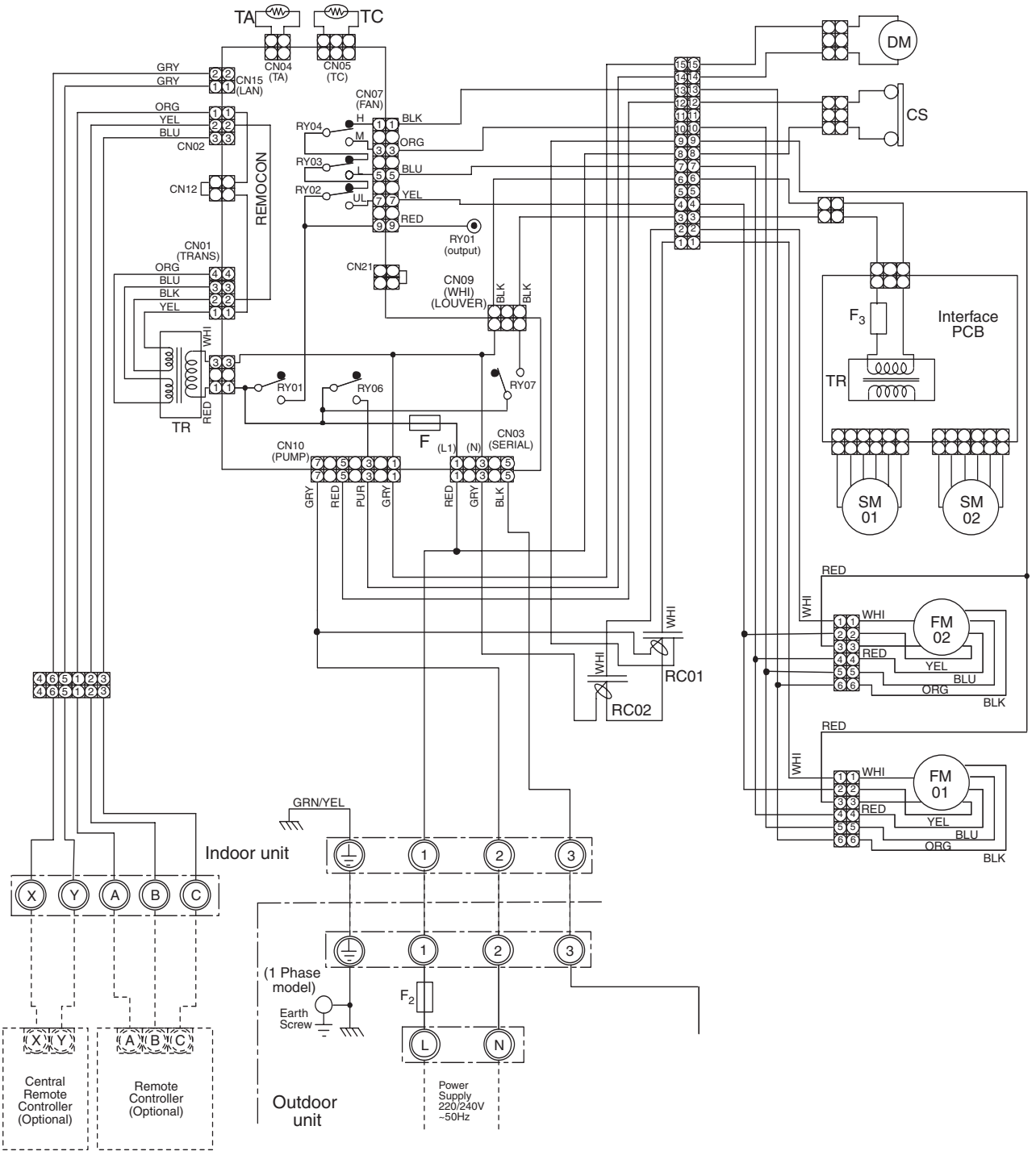
Symbol	Name	Symbol	Name
FM01, 02	Fan Motor	F	Fuse (PCB)
RC01, 02	Running Capacitor	F3	Fuse (Interface) PCB
TR	Transformer	DM	Drain Pump
TA	Sensor	SM01, 02	Stepper Motor
TC	Sensor	CS	Float Switch
RY01~RY07	Relay		

◯ shows terminal block and figures show terminal numbers.
Broken lines show wiring at site.

Do not operate the units with the magnetic contactor pushed in.

3. WIRING DIAGRAMS

3.8 RAV-104TUH-1-PE
RAV-134TUH-1-PE
RAV-164TUH-1-PE



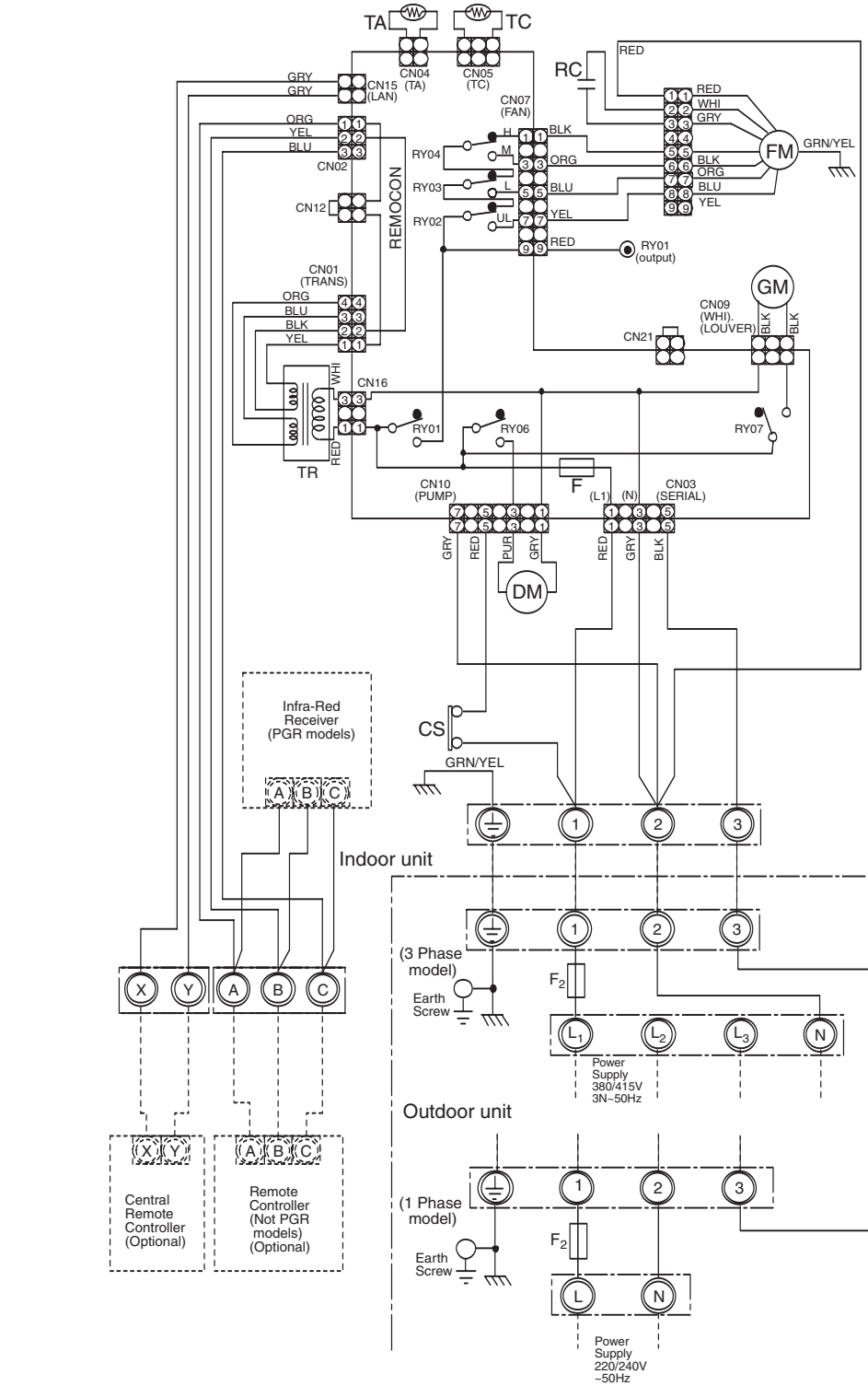
Symbol	Name	Symbol	Name
FM01, 02	Fan Motor	F	Fuse (PCB)
RC01,02	Running Capacitor	F3	Fuse (Interface) PCB
TR	Transformer	DM	Drain Pump
TA	Sensor	SM01, 02	Stepper Motor
TC	Sensor	CS	Float Switch
RY01~RY07	Relay		

◯ Shows terminal block and figures show terminal numbers.
Broken lines show wiring at site.

Do not operate the units with the magnetic contactor pushed in.

3. WIRING DIAGRAMS

3.9 RAV-164UH-PE
RAV-264UH-PE
RAV-364UH-PE
RAV-464UH-PE



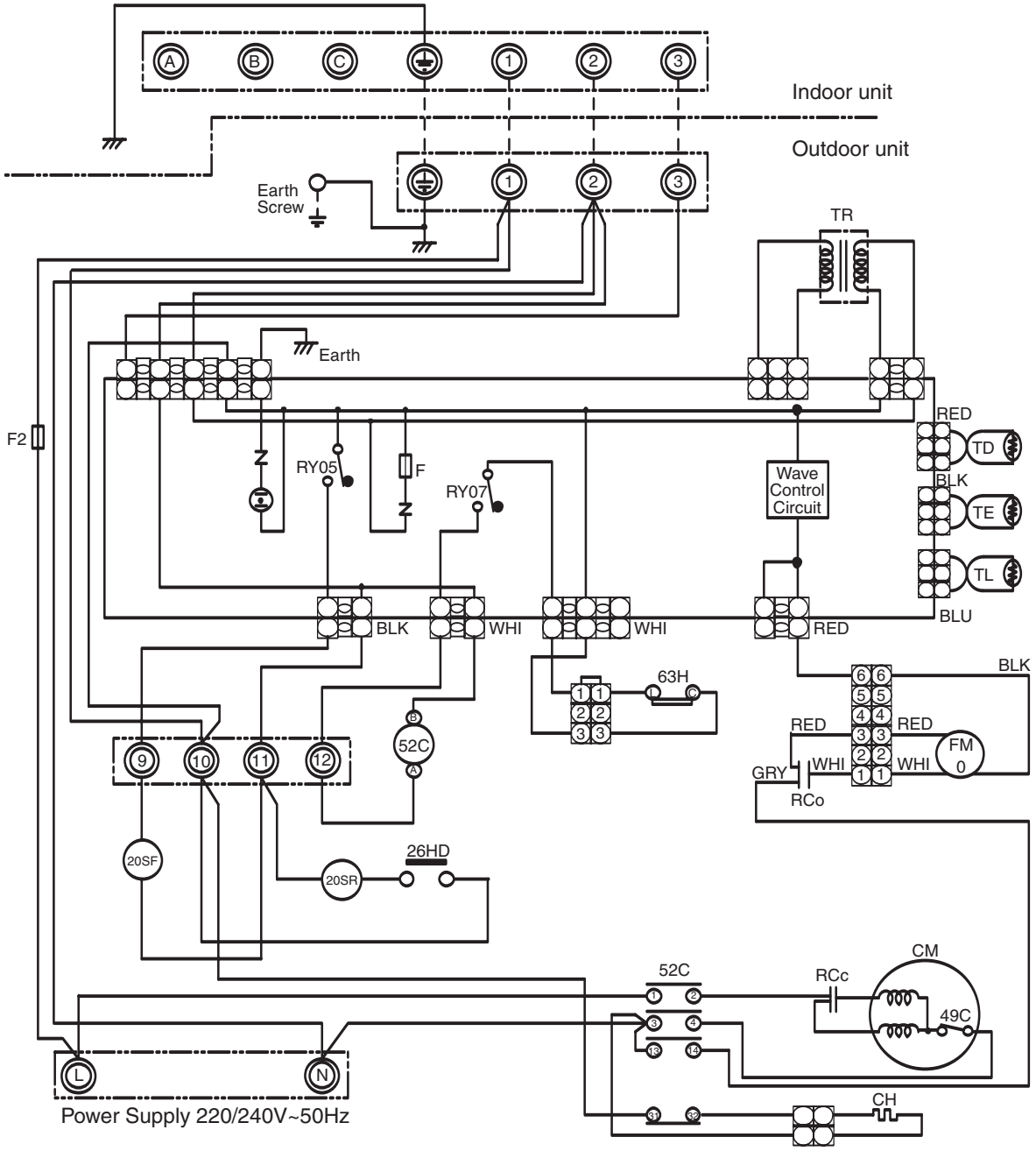
○ shows terminal block and figures show terminal numbers.
Broken lines show wiring at site.

Do not operate the units with the magnetic contactor pushed in.

Symbol	Name	Symbol	Name
FM	Fan Motor	TA	Sensor
RC	Running Capacitor	TC	Sensor
F	Fuse (PCB)	GM	Geared Motor
TR	Transformer	RY01~RY07	Relay
DM	Drain Pump	CS	Float Switch

3. WIRING DIAGRAMS

3.10 RAV-134AH-PE
RAV-164AH-PE
RAV-264AH-PE



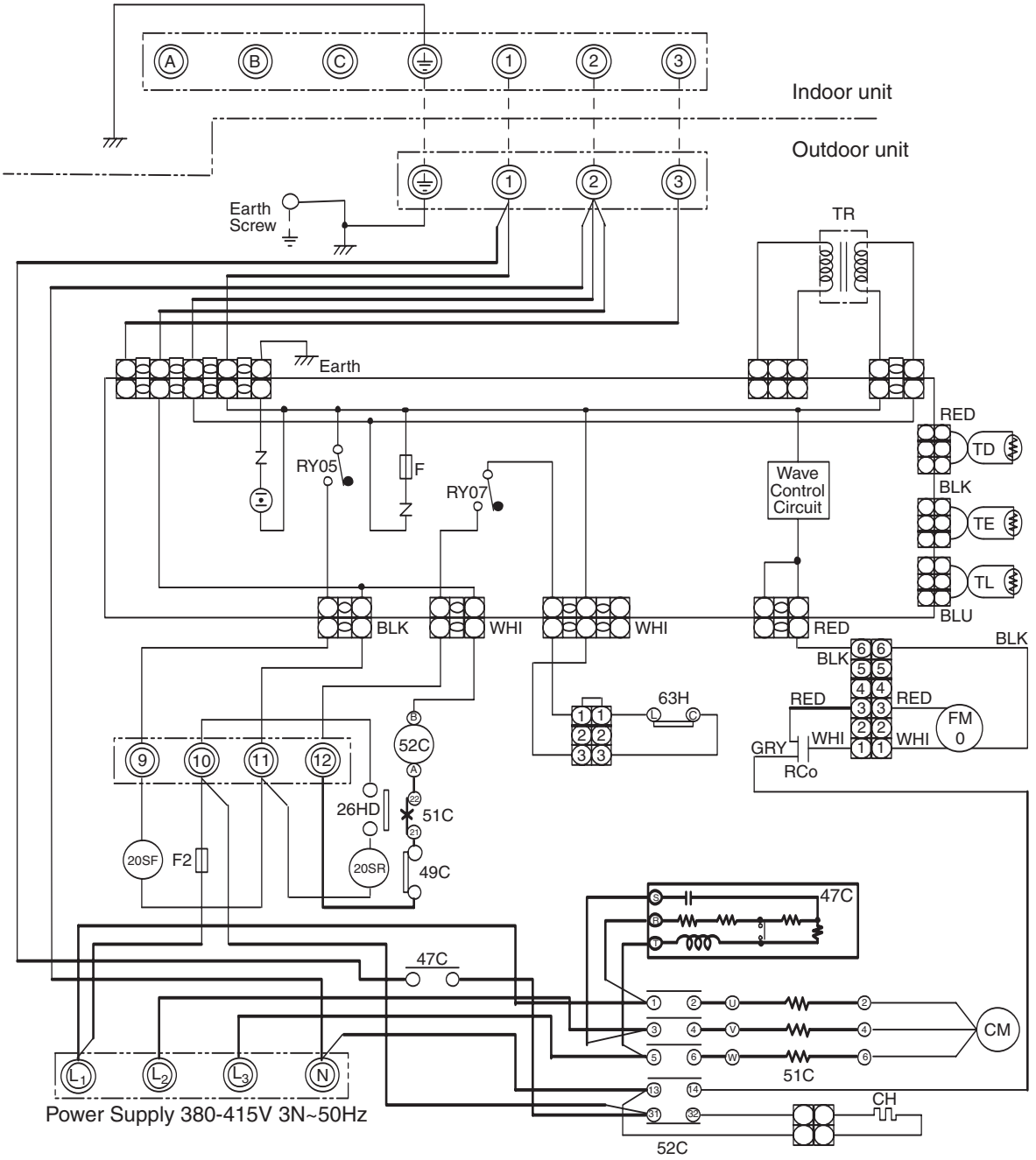
Shows terminal block and figures show terminal numbers. Broken lines show wiring at site.

Do not operate the units with magnetic contactor pushed in.

Symbol	Name	Symbol	Name	Symbol	Name
20SF	Solenoid coil (4 way valve)	CM	Compressor	F2	Fuse (T5A)
RY05,07	Relay	52C	Magnetic contactor	63H	High pressure switch
49C	Inner overload relay	FMo	Fan motor	CH	Crankcase heater
20SR	Solenoid coil (2 way valve)	TL	Sensor	F	Fuse (on PCB)
RCc	Running capacitor (compressor)	TE	Sensor	TR	Transformer
RCo	Running capacitor (fan motor)	26HD	Bimetal thermostat	TD	Sensor (Dummy)

3. WIRING DIAGRAMS

3.11 RAV-264AH8-PE



1. ◎ Shows terminal block and figures show terminal numbers. Broken lines show wiring at site.

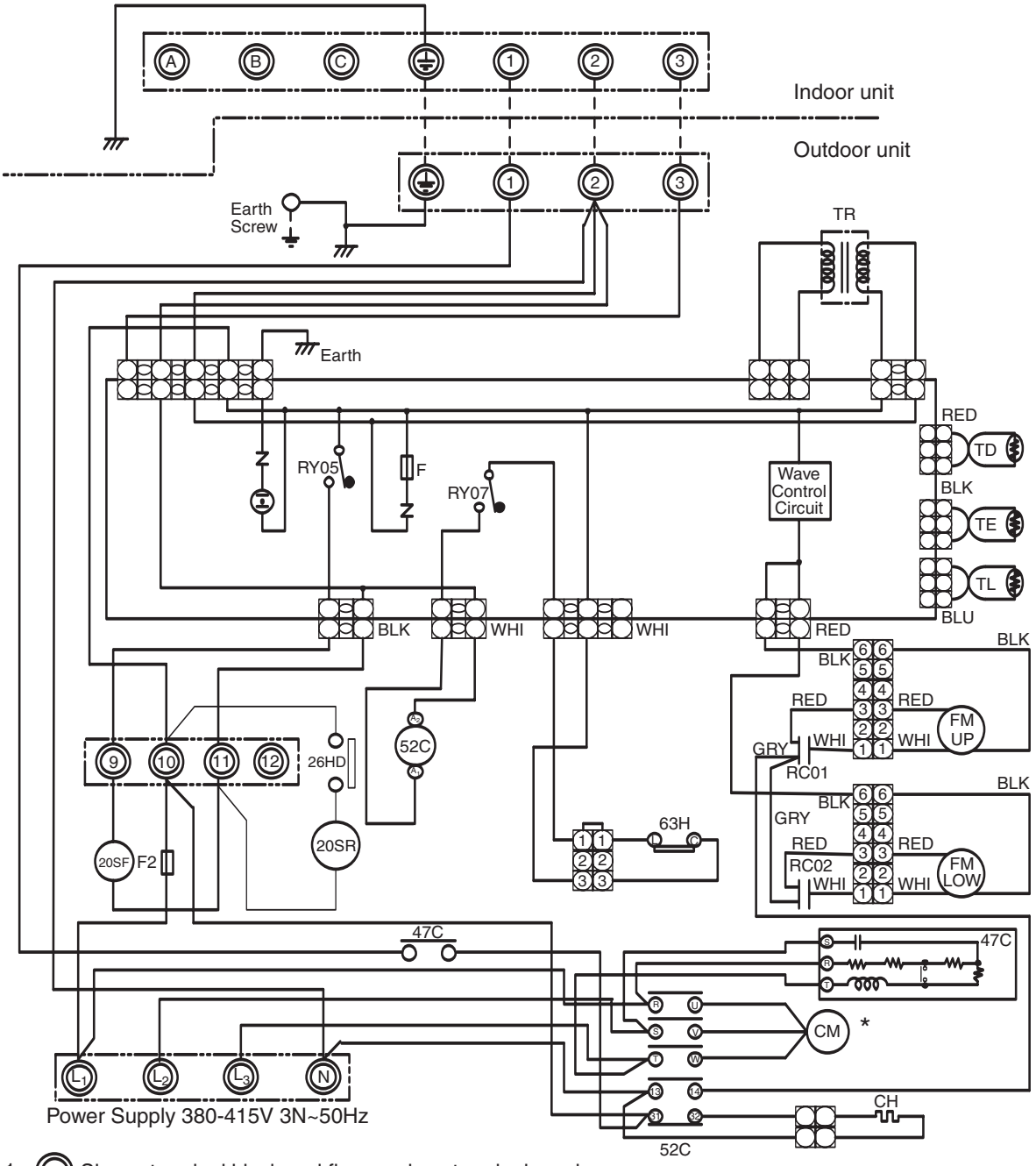
2. When the three phases are not connected correctly, the reverse phase protector operates, and the unit will not start. In this case, check the three phase wiring.

Do not operate the units with magnetic contactor pushed in.

Symbol	Name	Symbol	Name	Symbol	Name
20SF	Solenoid coil (4 way valve)	CM	Compressor	F2	Fuse (T5A)
RY05,07	Relay	52C	Magnetic contactor	63H	High pressure switch
49C	Temperature Overload relay	FMo	Fan motor	CH	Crankcase heater
51C	Current Overload relay	TL	Sensor	F	Fuse (on PCB)
47C	Reverse phase protector	TE	Sensor	TR	Transformer
RCo	Running capacitor	TD	Sensor (Dummy)	26HD	Bi-metal thermostat
20SR	Solenoid coil (2-way valve)				

3. WIRING DIAGRAMS

3.12 RAV-364AH8-1-PE



1. ◯ Shows terminal block and figures show terminal numbers. Broken lines show wiring at site.
2. When the phases are not connected correctly, the reverse phase protector operates and the unit will not start. In this case, check the three phase wiring.

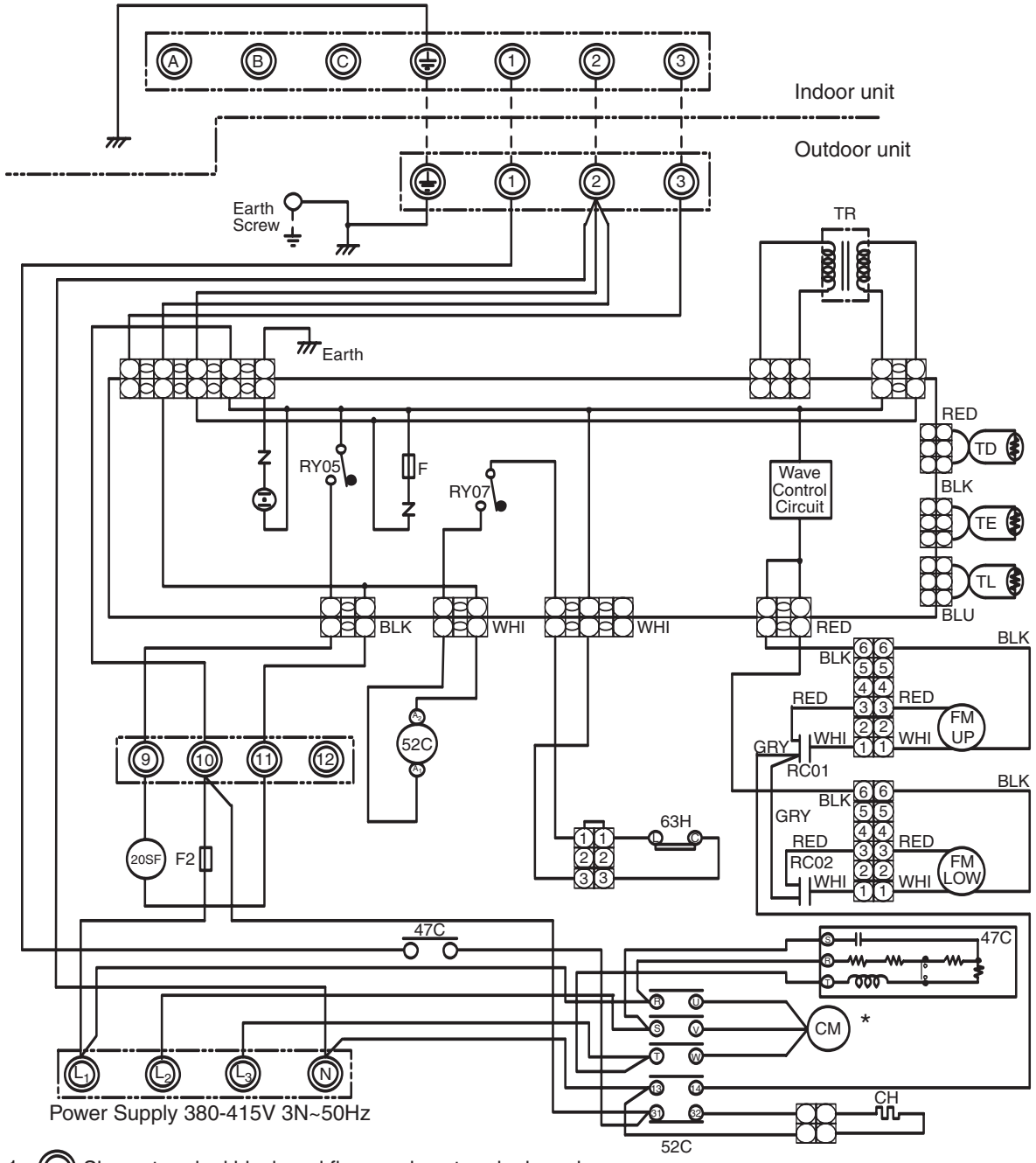
*Compressor has internal thermal protection

Do not operate the units with magnetic contactor pushed in.

Symbol	Name	Symbol	Name	Symbol	Name
20SF	Solenoid coil	CM	Compressor	63H	High pressure switch
RY05,07	Relay	52C	Magnetic contactor	CH	Crankcase heater
47C	Reverse Phase Protector	FMUP,LOW	Fan motor (Outdoor)	F	Fuse (on PCB)
F2	Fuse (T5A)	TL	Sensor	TR	Transformer
RC01,02	Running capacitor	TE	Sensor	TD	Sensor
20SR	Solenoid Coil (2 Way Valve)	26HD	Bimetal Thermostat		

3. WIRING DIAGRAMS

3.13 RAV-364AH8-PE
RAV-464AH8-PE



1. ◯ Shows terminal block and figures show terminal numbers.
   Broken lines show wiring at site.
2. When the phases are not connected correctly, the reverse phase protector operates and the unit will not start.
   In this case, check the three phase wiring.

*Compressor has internal thermal protection

Do not operate the units with magnetic contactor pushed in.

Symbol	Name	Symbol	Name	Symbol	Name
20SF	Solenoid coil	CM	Compressor	63H	High pressure switch
RY05,07	Relay	52C	Magnetic contactor	CH	Crankcase heater
47C	Reverse Phase Protector	FMUP,LOW	Fan motor (Outdoor)	F	Fuse (on PCB)
F2	Fuse (T5A)	TL	Sensor	TR	Transformer
RC01,02	Running capacitor	TE	Sensor	TD	Sensor

4. SPECIFICATIONS OF ELECTRICAL PARTS

4.1 RAV-104SBH-PE

No	PARTS NAME	TYPE	SPECIFICATIONS						
1	Indoor Unit fan motor (Supplier: SMEN)	SMF-230-34-4J	Output (rated) 34W, 4 pole, 230V, 1 Phase, 50Hz						
		Winding Resistance	High (Blk-Red) 464Ω at 25°C	Med (Blk-Orn) 83Ω at 25°C	Low (Orn-Blu) 57Ω at 25°C	Ultra Low (Blu-Yel) 67Ω at 25°C	Aux (Blk-Whi) 297Ω at 25°C		
2	Running capacitor for indoor fan motor		AC 500V, 1.0μF						
3	Transformer (Indoor Unit)	ST-10568	AC 187-264V						
4	Sensor for room temperature (TA)		Maximum input 38mA	°C	15	20	25	30	40
				kΩ	16.1	12.6	10.0	8.0	5.2
5	Sensor for heat exchanger temperature (TC)		Maximum input 15.5mA				°C	-12	10
							kΩ	67.5	21.3

4.2 RAV-164BH-PE

No	PARTS NAME	TYPE	SPECIFICATIONS						
1	Indoor Unit fan motor (Supplier: SMEN)	SMF-230-60-4A	Output (rated) 60W, 4 pole, 230V, 1 Phase, 50Hz						
		Winding Resistance	Ult High (Brn-Red) 79.1Ω at 25°C	High (Blk-Brn) 15Ω at 25°C	Med (Blk-Orn) 12.1Ω at 25°C	Low (Blu-Orn) 12.1Ω at 25°C	Ult Low (Yel-Blu) 27.8Ω at 25°C	Aux (Brn-Whi) 93.9Ω at 25°C	
2	Running capacitor for indoor fan motor		AC 400V, 4μF						
3	Transformer (Indoor Unit)	ST-10568	AC 187-264V						
4	Sensor for room temperature		Maximum input 38mA	°C	15	20	25	30	40
				kΩ	16.1	12.6	10.0	8.0	5.2
5	Sensor for heat exchanger temperature		Maximum input 15.5mA				°C	-12	10
							kΩ	67.5	21.3

4.3 RAV-264BH-PE

No	PARTS NAME	TYPE	SPECIFICATIONS						
1	Indoor Unit Fan Motor (Supplier: SANSO Electric)	STF-200-100-4B	Output (rated) 100W, 4 pole, 230V, 1 Phase, 50Hz						
	Indoor Unit fan motor (Supplier: SISME)	K48420 M01854	Output (rated) 83W, 4 pole, 230V, 1 Phase, 50Hz						
		Winding Resistance	Ult High (Brn-Red) 42.1Ω at 25°C	High (Blk-Brn) 17.6Ω at 25°C	Med (Blk-Orn) 9.0Ω at 25°C	Low (Blu-Orn) 8.9Ω at 25°C	Ult Low (Yel-Blu) 27.5Ω at 25°C	Aux (Brn-Whi) 52.7Ω at 25°C	
2	Running capacitor for indoor fan motor		AC 400V, 5μF						
3	Transformer (Indoor Unit)	ST-10568	AC 187-264V						
4	Sensor for room temperature		Maximum input 38mA	°C	15	20	25	30	40
				kΩ	16.1	12.6	10.0	8.0	5.2
5	Sensor for heat exchanger temperature		Maximum input 15.5mA				°C	-12	10
							kΩ	67.5	21.3

4. SPECIFICATIONS OF ELECTRICAL PARTS

4.4 RAV-364BH-PE

No	PARTS NAME	TYPE	SPECIFICATIONS
1	Indoor Unit fan motor (Supplier: SANSO Electric)	STF-200-120-4B	Output (rated) 120W, 4 pole, 230V, 1 Phase, 50Hz
	Indoor Unit fan motor (Supplier: SISME)	K48420 M01869	Output (rated) 144W, 4 pole, 230V, 1 Phase, 50Hz
		Winding Resistance	Ult High (Brn-Red) 28.8Ω at 25°C / High (Blk-Brn) 5.9Ω at 25°C / Med (Blk-Orn) 5.9Ω at 25°C / Low (Blu-Orn) 15.8Ω at 25°C / Ult Low (Yel-Blu) 27.5Ω at 25°C / Aux (Brn-Whi) 26.6Ω at 25°C
2	Running capacitor for indoor fan motor (SANSO Electric)		AC 400V, 5μF
	Running capacitor for indoor fan motor (SISME Electric)		AC 400V, 8μF
3	Transformer (Indoor Unit)	ST-10568	AC 187-264V
4	Sensor for room temperature		Maximum input 38mA

°C	15	20	25	30	40
kΩ	16.1	12.6	10.0	8.0	5.2

5	Sensor for heat exchanger temperature		Maximum input 15.5mA

°C	-12	10
kΩ	67.5	21.3

4.5 RAV464BH-PE

No	PARTS NAME	TYPE	SPECIFICATIONS
1	Indoor Unit fan motor (Supplier: SANSO Electric)	STF-200-140-4B	Output (rated) 140W, 4 pole, 230V, 1 Phase, 50Hz
	Indoor Unit fan motor (Supplier: SISME)	K48424 M01871	Output (rated) 175W, 4 pole, 230V, 1 Phase, 50Hz
		Winding Resistance	Ult High (Brn-Red) 24.4Ω at 25°C / High (Blk-Brn) 6.3Ω at 25°C / Med (Blk-Orn) 6.3Ω at 25°C / Low (Blu-Orn) 12.4Ω at 25°C / Ult Low (Yel-Blu) 21.1Ω at 25°C / Aux (Brn-Whi) 22.3Ω at 25°C
2	Running capacitor for indoor fan motor		AC 400V, 10μF
3	Transformer (Indoor Unit)	ST-10568	AC 187-264V
4	Sensor for room temperature		Maximum input 38mA

°C	15	20	25	30	40
kΩ	16.1	12.6	10.0	8.0	5.2

5	Sensor for heat exchanger temperature		Maximum input 15.5mA

°C	-12	10
kΩ	67.5	21.3

4.6 RAV-134CH/CHR-PE

No	PARTS NAME	TYPE	SPECIFICATIONS
1	Indoor Unit fan motor (Supplier: SMEN)	SMF-230-34-4H	Output (rated) 34W, 4 pole, 230V, 1 Phase, 50Hz
		Winding Resistance	High (Blk-Red) 464Ω at 25°C / Med (Blk-Orn) 83Ω at 25°C / Low (Orn-Blu) 57Ω at 25°C / Ultra Low (Blu-Yel) 67Ω at 25°C / Aux (Blk-Whi) 297Ω at 25°C
2	Running capacitor for indoor fan motor		AC 500V, 1.5μF
3	Transformer (Indoor Unit)	ST-10568	AC 187-264V
4	Geared motor	MT8-3-6	AC 230V, 3W
5	Sensor for room temperature		Maximum input 38mA

°C	15	20	25	30	40
kΩ	16.1	12.6	10.0	8.0	5.2

6	Indoor Unit sensor for heat exchanger temperature		Maximum input 15.5mA

°C	-12	10
kΩ	67.5	21.3

4. SPECIFICATIONS OF ELECTRICAL PARTS

4.7 RAV-164CH/CHR-PE

No	PARTS NAME	TYPE	SPECIFICATIONS
1	Indoor Unit fan motor (Supplier: SMEN)	SMF-230-34-4D	Output (rated) 34W, 4 pole, 230V, 1 Phase, 50Hz
		Winding Resistance	High (Blk-Red) 147.5Ω at 25°C / Med (Blk-Orn) 53.4Ω at 25°C / Low (Orn-Blu) 32.6Ω at 25°C / Ultra Low (Blu-Yel) 44.5Ω at 25°C / Aux (Blk-Whi) 135Ω at 25°C
	Indoor Unit fan motor (Supplier: Welling)	WLG-230-45-4	Output (rated) 45W, 4 pole, 230V, 1 Phase, 50Hz
2	Running capacitor for indoor fan motor		AC 500V, 2.5μF
3	Transformer (Indoor Unit)	ST-10568	AC 187-264V
4	Geared motor	MT8-3-6	AC 230V, 3W
5	Sensor for room temperature		Maximum input 38mA

°C	15	20	25	30	40
kΩ	16.1	12.6	10.0	8.0	5.2

6	Indoor Unit sensor for heat exchanger temperature		Maximum input 15.5mA

°C	-12	10
kΩ	67.5	21.3

4.8 RAV-264CH/CHR-PE

No	PARTS NAME	TYPE	SPECIFICATIONS
1	Indoor Unit fan motor (Supplier: SMEN)	SMF-230-34-4D	Output (rated) 34W, 4 pole, 230V, 1 Phase, 50Hz
		Winding Resistance	High (Blk-Red) 147.5Ω at 25°C / Med (Blk-Orn) 53.4Ω at 25°C / Low (Orn-Blu) 32.6Ω at 25°C / Ultra Low (Blu-Yel) 44.5Ω at 25°C / Aux (Blk-Whi) 135Ω at 25°C
	Indoor Unit fan motor (Supplier: Welling)	WLG-230-45-4	Output (rated) 45W, 4 pole, 230V, 1 Phase, 50Hz
2	Running capacitor for indoor fan motor		AC 450V, 2.5μF
3	Transformer (Indoor Unit)	ST-10568	AC 187-264V
4	Geared motor	MT8-3-6	AC 230V, 3W
5	Sensor for room temperature		Maximum input 38mA

°C	15	20	25	30	40
kΩ	16.1	12.6	10.0	8.0	5.2

6	Indoor Unit sensor for heat exchanger temperature		Maximum input 15.5mA

°C	-12	10
kΩ	67.5	21.3

4.9 RAV-364CH/CHR-PE

No	PARTS NAME	TYPE	SPECIFICATIONS
1	Indoor Unit fan motor (Supplier: SMEN)	SMF-230-75-4U	Output (rated) 75W, 4 pole, 230V, 1 Phase, 50Hz
		Winding Resistance	High (Blk-Red) 108Ω at 25°C / Med (Blk-Orn) 13Ω at 25°C / Low (Orn-Blu) 11Ω at 25°C / Ultra Low (Blu-Yel) 12Ω at 25°C / Aux (Blk-Whi) 168Ω at 25°C
2	Running capacitor for indoor fan motor		AC 450V, 3.0μF
3	Transformer (Indoor Unit)	ST-10568	AC 187-264V
4	Geared motor	MT8-3-6	AC 230V, 3W
5	Sensor for room temperature		Maximum input 38mA

°C	15	20	25	30	40
kΩ	16.1	12.6	10.0	8.0	5.2

6	Indoor Unit sensor for heat exchanger temperature		Maximum input 15.5mA

°C	-12	10
kΩ	67.5	21.3

4. SPECIFICATIONS OF ELECTRICAL PARTS

4.10 RAV-464CH/CHR-PE

No	PARTS NAME	TYPE	SPECIFICATIONS						
1	Indoor Unit fan motor (Supplier: SMEN)	SMF-230-75-4B	Output (rated) 75W, 4 pole, 230V, 1 Phase, 50Hz						
		Winding Resistance	High (Blk-Red) 63Ω at 25°C	Med (Blk-Orn) 15Ω at 25°C	Low (Orn-Blu) 15Ω at 25°C	Ultra Low (Blu-Yel) 25.4Ω at 25°C	Aux (Blk-Whi) 94.5Ω at 25°C		
2	Running capacitor for indoor fan motor		AC 400V, 4.0μF						
3	Transformer (Indoor Unit)	ST-10568	AC 187-264V						
4	Geared motor	MT8-3-6	AC 230V, 3W						
5	Sensor for room temperature		Maximum input 38mA	°C	15	20	25	30	40
				kΩ	16.1	12.6	10.0	8.0	5.2
6	Indoor Unit sensor for heat exchanger temperature		Maximum input 15.5mA				°C	-12	10
							kΩ	67.5	21.3

4.11 RAV-134KH/KHR-PE

No	PARTS NAME	TYPE	SPECIFICATIONS						
1	Indoor Unit fan motor (Supplier: Matsushita)	MMF-230-27-4P	Output (rated) 27W, 4 pole, 230V, 1 Phase, 50Hz						
		Winding Resistance	High (Blk-Red) 198.9Ω at 25°C	Med (Blk-Orn) 148.7Ω at 25°C	Low (Orn-Blu) 30.7Ω at 25°C	Ultra Low (Blu-Yel) 38.4Ω at 25°C	Aux (Blk-Whi) 234.4Ω at 25°C		
2	Running capacitor for indoor fan motor		AC 500V, 1.0μF						
3	Transformer (Indoor Unit)	ST-10568	AC 187-264V						
4	Geared motor	MT8-3-6	AC 230V, 3W						
5	Sensor for room temperature		Maximum input 38mA	°C	15	20	25	30	40
				kΩ	16.1	12.6	10.0	8.0	5.2
6	Indoor Unit sensor for heat exchanger temperature		Maximum input 15.5mA				°C	-12	10
							kΩ	67.5	21.3

4.12 RAV-164KH/KHR-PE

No	PARTS NAME	TYPE	SPECIFICATIONS						
1	Indoor Unit fan motor (Supplier: Matsushita)	MMF-230-27-4P	Output (rated) 27W, 4 pole, 230V, 1 Phase, 50Hz						
		Winding Resistance	High (Blk-Red) 198.9Ω at 25°C	Med (Blk-Orn) 148.7Ω at 25°C	Low (Orn-Blu) 30.7Ω at 25°C	Ultra Low (Blu-Yel) 38.4Ω at 25°C	Aux (Blk-Whi) 234.4Ω at 25°C		
2	Running capacitor for indoor fan motor		AC 500V, 1.5μF						
3	Transformer (Indoor Unit)	ST-10568	AC 187-264V						
4	Geared motor	MT8-3-6	AC 230V, 3W						
5	Sensor for room temperature		Maximum input 38mA	°C	15	20	25	30	40
				kΩ	16.1	12.6	10.0	8.0	5.2
6	Indoor Unit sensor for heat exchanger temperature		Maximum input 15.5mA				°C	-12	10
							kΩ	67.5	21.3

4. SPECIFICATIONS OF ELECTRICAL PARTS

4.13 RAV-264KH/KHR-PE

No	PARTS NAME	TYPE	SPECIFICATIONS
1	Indoor Unit fan motor (Supplier: Matsushita)	MMF-230-27-4R	Output (rated) 27W, 4 pole, 230V, 1 Phase, 50Hz
		Winding Resistance	High (Blk-Red) 178.2Ω at 25°C / Med (Blk-Orn) 111.9Ω at 25°C / Low (Orn-Blu) 30.0Ω at 25°C / Ultra Low (Blu-Yel) 46.5Ω at 25°C / Aux (Blk-Whi) 237Ω at 25°C
2	Running capacitor for indoor fan motor		AC 450V, 2.0μF
3	Transformer (Indoor Unit)	ST-10568	AC 187-264V
4	Geared motor	MT8-3-6	AC 230V, 3W
5	Sensor for room temperature		Maximum input 38mA

°C	15	20	25	30	40
kΩ	16.1	12.6	10.0	8.0	5.2

6	Indoor Unit sensor for heat exchanger temperature		Maximum input 15.5mA

°C	-12	10
kΩ	67.5	21.3

4.14 RAV-104NH-PE

No	PARTS NAME	TYPE	SPECIFICATIONS
1	Indoor Unit fan motor (Supplier: SMEN)	SMF-230-34-4H	Output (rated) 34W, 4 pole, 230V, 1 Phase, 50Hz
		Winding Resistance	High (Blk-Red) 464Ω at 25°C / Med (Blk-Orn) 83Ω at 25°C / Low (Orn-Blu) 57Ω at 25°C / Ultra Low (Blu-Yel) 67Ω at 25°C / Aux (Blk-Whi) 297Ω at 25°C
2	Running capacitor for indoor fan motor		AC 500V, 1.5μF
3	Transformer (Indoor Unit)	ST-10568	AC 187-264V
4	Sensor for room temperature		Maximum input 38mA

°C	15	20	25	30	40
kΩ	16.1	12.6	10.0	8.0	5.2

5	Sensor for heat exchanger temperature		Maximum input 15.5mA

°C	-12	10
kΩ	67.5	21.3

4.15 RAV-134NH-PE

No	PARTS NAME	TYPE	SPECIFICATIONS
1	Indoor Unit fan motor (Supplier: SMEN)	SMF-230-34-4H	Output (rated) 34W, 4 pole, 230V, 1 Phase, 50Hz
		Winding Resistance	High (Blk-Red) 464Ω at 25°C / Med (Blk-Orn) 83Ω at 25°C / Low (Orn-Blu) 57Ω at 25°C / Ultra Low (Blu-Yel) 67Ω at 25°C / Aux (Blk-Whi) 297Ω at 25°C
2	Running capacitor for indoor fan motor		AC 450V, 2μF
3	Transformer (Indoor Unit)	ST-10568	AC 187-264V
4	Sensor for room temperature		Maximum input 38mA

°C	15	20	25	30	40
kΩ	16.1	12.6	10.0	8.0	5.2

5	Sensor for heat exchanger temperature		Maximum input 15.5mA

°C	-12	10
kΩ	67.5	21.3

Tel: 01823 665660 www.heronhill.co.uk Fax: 01823 665807

4. SPECIFICATIONS OF ELECTRICAL PARTS

4.16 RAV-164NH-PE

No	PARTS NAME	TYPE	SPECIFICATIONS						
1	Indoor Unit fan motor (Supplier: SMEN)	SMF-230-34-4E	Output (rated) 34W, 4 pole, 230V, 1 Phase, 50Hz						
		Winding Resistance	High (Blk-Red) 474Ω at 25°C	Med (Blk-Orn) 90Ω at 25°C	Low (Orn-Blu) 60Ω at 25°C	Ultra Low (Blu-Yel) 71Ω at 25°C	Aux (Blk-Whi) 318Ω at 25°C		
2	Running capacitor for indoor fan motor		AC 450V, 2.5μF						
3	Transformer (Indoor Unit)	ST-10568	AC 187-264V						
4	Sensor for room temperature		Maximum input 38mA	°C	15	20	25	30	40
				kΩ	16.1	12.6	10.0	8.0	5.2
5	Sensor for heat exchanger temperature		Maximum input 15.5mA				°C	-12	10
							kΩ	67.5	21.3

4.17 RAV-264NH-PE

No	PARTS NAME	TYPE	SPECIFICATIONS						
1	Indoor Unit fan motor (Supplier: SMEN)	SMF-230-34-4O	Output (rated) 34W, 4 pole, 230V, 1 Phase, 50Hz						
		Winding Resistance	High (Blk-Red) 147.5Ω at 25°C	Med (Blk-Orn) 53.4Ω at 25°C	Low (Orn-Blu) 32.6Ω at 25°C	Ultra Low (Blu-Yel) 44.5Ω at 25°C	Aux (Blk-Whi) 135Ω at 25°C		
2	Running capacitor for indoor fan motor		AC 500V, 1.5μF						
3	Transformer (Indoor Unit)	ST-10568	AC 187-264V						
4	Sensor for room temperature		Maximum input 38mA	°C	15	20	25	30	40
				kΩ	16.1	12.6	10.0	8.0	5.2
5	Sensor for heat exchanger temperature		Maximum input 15.5mA				°C	-12	10
							kΩ	67.5	21.3

4.18 RAV-164SH/SHR-PE

No	PARTS NAME	TYPE	SPECIFICATIONS						
1	Indoor Unit fan motor (Supplier: SMEN)	SMF-230-34-4D	Output (rated) 34W, 4 pole, 230V, 1 Phase, 50Hz						
		Winding Resistance	High (Blk-Red) 147.5Ω at 25°C	Med (Blk-Orn) 53.4Ω at 25°C	Low (Orn-Blu) 32.6Ω at 25°C	Ultra Low (Blu-Yel) 44.5Ω at 25°C	Aux (Blk-Whi) 135Ω at 25°C		
	Indoor Unit fan motor (Supplier: Welling)	WLG-230-45-4	Output (rated) 45W, 4 pole, 230V, 1 Phase, 50Hz						
2	Running capacitor for indoor fan motor		AC 450V, 2.5μF						
3	Transformer (Indoor Unit)	ST-10568	AC 187-264V						
4	Sensor for room temperature		Maximum input 38mA	°C	15	20	25	30	40
				kΩ	16.1	12.6	10.0	8.0	5.2
5	Sensor for heat exchanger temperature		Maximum input 15.5mA				°C	-12	10
							kΩ	67.5	21.3

4. SPECIFICATIONS OF ELECTRICAL PARTS

4.19 RAV-264SH/SHR-PE

No	PARTS NAME	TYPE	SPECIFICATIONS						
1	Indoor Unit fan motor (Supplier: SMEN)	SMF-230-34-4D	Output (rated) 34W, 4 pole, 230V, 1 Phase, 50Hz						
		Winding Resistance	High (Blk-Red) 147.5Ω at 25°C	Med (Blk-Orn) 53.4Ω at 25°C	Low (Orn-Blu) 32.6Ω at 25°C	Ultra Low (Blu-Yel) 44.5Ω at 25°C	Aux (Blk-Whi) 135Ω at 25°C		
	Indoor Unit fan motor (Supplier: Welling)	WLG-230-45-4	Output (rated) 34W, 4 pole, 230V, 1 Phase, 50Hz						
2	Running capacitor for indoor fan motor		AC 450V, 2.5μF						
3	Transformer (Indoor Unit)	ST-10568	AC 187-264V						
4	Sensor for room temperature		Maximum input 38mA	°C	15	20	25	30	40
				kΩ	16.1	12.6	10.0	8.0	5.2
5	Sensor for heat exchanger temperature		Maximum input 15.5mA				°C	-12	10
							kΩ	67.5	21.3

4.20 RAV-104TUH-PE

No	PARTS NAME	TYPE	SPECIFICATIONS						
1	Indoor Unit fan motor (x2) (Supplier: Matsushita)	PAF-230-7-4	Output (rated) 7W, 4 pole, 230V, 1 Phase, 50Hz						
		Winding Resistance	High (1 - 4) 511.1Ω at 25°C	Med (1 - 3) 248.2Ω at 25°C	Low (2 - 3) 87.5Ω at 25°C	Ultra Low (2 - 5) 18.7Ω at 25°C	Aux (5 - 6) 110.4Ω at 25°C		
2	Running capacitor for indoor fan motor (x2)		AC 450V, 0.5μF						
3	Transformer (Indoor Unit)	ST-10568	AC 187-264V						
4	Stepper motor (x2)	MP35EA2	DC 12V, 80mNm						
5	Drain pump	PCD-4N230TF-3	AC 230V, 0.2A						
6	Float switch	FS-085-003E	AC 230V, 0.5A						
7	Sensor for room temperature		Maximum input 38mA	°C	15	20	25	30	40
				kΩ	16.1	12.6	10.0	8.0	5.2
8	Indoor Unit sensor for heat exchanger temperature		Maximum input 15.5mA				°C	-12	10
							kΩ	67.5	21.3

4.21 RAV-134TUH-PE

No	PARTS NAME	TYPE	SPECIFICATIONS						
1	Indoor Unit fan motor (x2) (Supplier: Matsushita)	PAF-230-7-4	Output (rated) 7W, 4 pole, 230V, 1 Phase, 50Hz						
		Winding Resistance	High (1 - 4) 511.1Ω at 25°C	Med (1 - 3) 248.2Ω at 25°C	Low (2 - 3) 87.5Ω at 25°C	Ultra Low (2 - 5) 18.7Ω at 25°C	Aux (5 - 6) 110.4Ω at 25°C		
2	Running capacitor for indoor fan motor (x2)		AC 500V, 1.0μF						
3	Transformer (Indoor Unit)	ST-10568	AC 187-264V						
4	Stepper motor (x2)	MP35EA2	DC 12V, 80mNm						
5	Drain pump	PCD-4N230TF-3	AC 230V, 0.2A						
6	Float switch	FS-085-003E	AC 230V, 0.5A						
7	Sensor for room temperature		Maximum input 38mA	°C	15	20	25	30	40
				kΩ	16.1	12.6	10.0	8.0	5.2
8	Indoor Unit sensor for heat exchanger temperature		Maximum input 15.5mA				°C	-12	10
							kΩ	67.5	21.3

4. SPECIFICATIONS OF ELECTRICAL PARTS

4.22 RAV-164TUH-PE

No	PARTS NAME	TYPE	SPECIFICATIONS						
1	Indoor Unit fan motor (x2) (Supplier: Matsushita)	PAF-230-7-4	Output (rated) 7W, 4 pole, 230V, 1 Phase, 50Hz						
		Winding Resistance	High (1 - 4) 511.1Ω at 25°C	Med (1 - 3) 248.2Ω at 25°C	Low (2 - 3) 87.5Ω at 25°C	Ultra Low (2 - 5) 18.7Ω at 25°C	Aux (5 - 6) 110.4Ω at 25°C		
2	Running capacitor for indoor fan motor (x2)		AC 500V, 1.0μF						
3	Transformer (Indoor Unit)	ST-10568	AC 187-254V						
4	Stepper motor (x2)	MP35EA2	DC 12V, 80mNm						
5	Drain pump	PCD-4N230TF-3	AC 230V, 0.2A						
6	Float switch	FS-085-003E	AC 230V, 0.5A						
7	Sensor for room temperature		Maximum input 38mA	°C	15	20	25	30	40
				kΩ	16.1	12.6	10.0	8.0	5.2
8	Indoor Unit sensor for heat exchanger temperature		Maximum input 15.5mA				°C	-12	10
							kΩ	67.5	21.3

4.23 RAV-104TUH-1-PE

No	PARTS NAME	TYPE	SPECIFICATIONS						
1	Indoor Unit fan motor (x2) (Supplier: Matsushita)	PAF-230-7-4	Output (rated) 7W, 4 pole, 230V, 1 Phase, 50Hz						
		Winding Resistance	High (1 - 4) 511.1Ω at 25°C	Med (1 - 3) 248.2Ω at 25°C	Low (2 - 3) 87.5Ω at 25°C	Ultra Low (2 - 5) 18.7Ω at 25°C	Aux (5 - 6) 110.4Ω at 25°C		
2	Running capacitor for indoor fan motor (x2)		AC 450V, 0.5μF						
3	Transformer (Indoor Unit)	ST-10568	AC 187-264V						
4	Stepper motor (x2)	MP35EA2	DC 12V, 80mNm						
5	Drain pump	PJV-0764	AC 230V, 0.2A						
6	Float switch	FS-085-003B	AC 230V, 0.5A						
7	Sensor for room temperature		Maximum input 38mA	°C	15	20	25	30	40
				kΩ	16.1	12.6	10.0	8.0	5.2
8	Indoor Unit sensor for heat exchanger temperature		Maximum input 15.5mA				°C	-12	10
							kΩ	67.5	21.3

4.24 RAV-134TUH-1-PE

No	PARTS NAME	TYPE	SPECIFICATIONS						
1	Indoor Unit fan motor (x2) (Supplier: Matsushita)	PAF-230-7-4	Output (rated) 7W, 4 pole, 230V, 1 Phase, 50Hz						
		Winding Resistance	High (1 - 4) 511.1Ω at 25°C	Med (1 - 3) 248.2Ω at 25°C	Low (2 - 3) 87.5Ω at 25°C	Ultra Low (2 - 5) 18.7Ω at 25°C	Aux (5 - 6) 110.4Ω at 25°C		
2	Running capacitor for indoor fan motor (x2)		AC 500V, 1.0μF						
3	Transformer (Indoor Unit)	ST-10568	AC 187-264V						
4	Stepper motor (x2)	MP35EA2	DC 12V, 80mNm						
5	Drain pump	PJV-0764	AC 230V, 0.2A						
6	Float switch	FS-085-003B	AC 230V, 0.5A						
7	Sensor for room temperature		Maximum input 38mA	°C	15	20	25	30	40
				kΩ	16.1	12.6	10.0	8.0	5.2
8	Indoor Unit sensor for heat exchanger temperature		Maximum input 15.5mA				°C	-12	10
							kΩ	67.5	21.3

4. SPECIFICATIONS OF ELECTRICAL PARTS

4.25 RAV-164TUH-1-PE

No	PARTS NAME	TYPE	SPECIFICATIONS						
1	Indoor Unit fan motor (x2) (Supplier: Matsushita)	PAF-230-7-4	Output (rated) 7W, 4 pole, 230V, 1 Phase, 50Hz						
		Winding Resistance	High (1 - 4) 511.1Ω at 25°C	Med (1 - 3) 248.2Ω at 25°C	Low (2 - 3) 87.5Ω at 25°C	Ultra Low (2 - 5) 18.7Ω at 25°C	Aux (5 - 6) 110.4Ω at 25°C		
2	Running capacitor for indoor fan motor (x2)		AC 500V, 1.0μF						
3	Transformer (Indoor Unit)	ST-10568	AC 187-264V						
4	Stepper motor (x2)	MP35EA2	DC 12V, 80mNm						
5	Drain pump	PJV-0764	AC 230V, 0.2A						
6	Float switch	FS-085-003B	AC 230V, 0.5A						
7	Sensor for room temperature		Maximum input 38mA	°C	15	20	25	30	40
				kΩ	16.1	12.6	10.0	8.0	5.2
8	Indoor Unit sensor for heat exchanger temperature		Maximum input 15.5mA				°C	-12	10
							kΩ	67.5	21.3

4.26 RAV-164UH-PE

No	PARTS NAME	TYPE	SPECIFICATIONS						
1	Indoor Unit fan motor (Supplier: Matsushita)	MMF-230-28A	Output (rated) 28W, 4 pole, 230V, 1 Phase, 50Hz						
		Winding Resistance	High (Blk-Red) 125Ω at 25°C	Med (Blk-Orn) 44.5Ω at 25°C	Low (Orn-Blu) 38.6Ω at 25°C	Ultra Low (Blu-Yel) 18.6Ω at 25°C	Aux (Blk-Whi) 162.7Ω at 25°C		
	Indoor Unit fan motor (Supplier: Welling)	WLG-230-28-6	Output (rated) 28W, 4 pole, 230V, 1 Phase, 50Hz						
2	Running capacitor for indoor fan motor		AC 500V, 1.0μF						
3	Transformer (Indoor Unit)	ST-10568	AC 287-264V						
4	Geared motor	MT8-3-8	AC 240V, 3W						
5	Drain pump	PJV-0739	AC 230V, 0.2A						
6	Float switch	FS-085-003B	AC 230V, 0.5A						
7	Sensor for room temperature		Maximum input 38mA	°C	15	20	25	30	40
				kΩ	16.1	12.6	10.0	8.0	5.2
8	Indoor Unit sensor for heat exchanger temperature		Maximum input 15.5mA				°C	-12	10
							kΩ	67.5	21.3

4. SPECIFICATIONS OF ELECTRICAL PARTS

4.27 RAV-264UH-PE

No	PARTS NAME	TYPE	SPECIFICATIONS						
1	Indoor Unit fan motor (Supplier: Matsushita)	MMF-230-28A	Output (rated) 28W, 4 pole, 230V, 1 Phase, 50Hz						
		Winding Resistance	High (Blk-Red) 125Ω at 25°C	Med (Blk-Orn) 44.5Ω at 25°C	Low (Orn-Blu) 38.6Ω at 25°C	Ultra Low (Blu-Yel) 18.6Ω at 25°C	Aux (Blk-Whi) 162.7Ω at 25°C		
	Indoor Unit fan motor (Supplier: Welling)	WLG-230-28-6	Output (rated) 28W, 4 pole, 230V, 1 Phase, 50Hz						
2	Running capacitor for indoor fan motor		AC 450V, 2.0μF						
3	Transformer (Indoor Unit)	ST-10568	AC 287-264V						
4	Geared motor	MT8-3-8	AC 240V, 3W						
5	Drain pump	PJV-0739	AC 230V, 0.2A						
6	Float switch	FS-085-003B	AC 230V, 0.5A						
7	Sensor for room temperature		Maximum input 38mA	°C	15	20	25	30	40
				kΩ	16.1	12.6	10.0	8.0	5.2
8	Indoor Unit sensor for heat exchanger temperature		Maximum input 15.5mA				°C	-12	10
							kΩ	67.5	21.3

4.28 RAV-364UH-PE

No	PARTS NAME	TYPE	SPECIFICATIONS						
1	Indoor Unit fan motor (Supplier: Matsushita)	MMF-230-36A	Output (rated) 36W, 4 pole, 230V, 1 Phase, 50Hz						
		Winding Resistance	High (Blk-Red) 71.1Ω at 25°C	Med (Blk-Orn) 10Ω at 25°C	Low (Orn-Blu) 16.6Ω at 25°C	Ultra Low (Blu-Yel) 10.2Ω at 25°C	Aux (Blk-Whi) 81.8Ω at 25°C		
	Indoor Unit fan motor (Supplier: Welling)	WLG-230-36-6	Output (rated) 36W, 4 pole, 230V, 1 Phase, 50Hz						
2	Running capacitor for indoor fan motor		AC 450V, 2.5μF						
3	Transformer (Indoor Unit)	ST-10568	AC 187-264V						
4	Geared motor	MT8-3-8	AC 230V, 3W						
5	Drain pump	PJV-0739	AC 230V, 0.2A						
6	Float switch	FS-085-003B	AC 230V, 0.5A						
7	Sensor for room temperature		Maximum input 38mA	°C	15	20	25	30	40
				kΩ	16.1	12.6	10.0	8.0	5.2
8	Indoor Unit sensor for heat exchanger temperature		Maximum input 15.5mA				°C	-12	10
							kΩ	67.5	21.3

4. SPECIFICATIONS OF ELECTRICAL PARTS

4.29 RAV-464UH-PE

No	PARTS NAME	TYPE	SPECIFICATIONS
1	Indoor Unit fan motor (Supplier: Matsushita)	MMF-230-36A	Output (rated) 36W, 4 pole, 230V, 1 Phase, 50Hz
		Winding Resistance	High (Blk-Red) 71.1Ω at 25°C / Med (Blk-Orn) 10Ω at 25°C / Low (Orn-Blu) 16.6Ω at 25°C / Ultra Low (Blu-Yel) 10.2Ω at 25°C / Aux (Blk-Whi) 81.8Ω at 25°C
	Indoor Unit fan motor (Supplier: Welling)	WLG-230-36-6	Output (rated) 36W, 4 pole, 230V, 1 Phase, 50Hz
2	Running capacitor for indoor fan motor		AC 450V, 3.0μF
3	Transformer (Indoor Unit)	ST-10568	AC 187-264V
4	Geared motor	MT8-3-8	AC 230V, 3W
5	Drain pump	PJV-0739	AC 230V, 0.2A
6	Float switch	FS-085-003B	AC 230V, 0.5A
7	Sensor for room temperature		Maximum input 38mA

°C	15	20	25	30	40
kΩ	16.1	12.6	10.0	8.0	5.2

8	Indoor Unit sensor for heat exchanger temperature		Maximum input 15.5mA

°C	-12	10
kΩ	67.5	21.3

4.30 RAV-134AH-PE

No	PARTS NAME	TYPE	SPECIFICATIONS
1	Compressor	PG330X3F-4LS	Output (rated) 1.5kW, 2 pole, 220/240V, 1 Phase, 50Hz Winding Resistance: Common Run 1.17Ω at 20°C Common Start 2.34Ω at 20°C
2	Outdoor Unit fan motor	SMF-230-39N-2	Output (rated) 39W, 6 pole, 230V, 1 Phase, 50Hz Winding Resistance: Common Run (Blk-Red) 97.1Ω at 25°C Common Start (Blk-White) 97.5Ω at 25°C
3	Running capacitor for outdoor fan motor		AC 400V, 4μF
4	Magnetic contactor (Supplier: Fuji Electric)	FMCa-1S-02	AC 220-240V, 50Hz
5	High pressure switch	ACB-2TB04W	Tripping pressure 30kgf/cm²G Resetting pressure 23kgf/cm²G
6	Solenoid coil for four-way valve	CHV-AC240V	AC 220-240V
7	Crankcase heater		AC 240V, 28W
8	Sensor for defrosting		Maximum input 15.5mA

°C	-12	10
kΩ	67.5	21.3

9	Fuse		T5A
10	Sensor for cooling operation in low ambient temperature		Maximum input 15.5mA

°C	-12	10
kΩ	67.5	21.3

11	Solenoid coil for two-way valve	NEV AC 240V	AC 220-240V, 50Hz
12	Running capacitor for compressor		AC 440V, 45μF
13	Transformer (Outdoor Unit)	FT-67	AC 187-264V
14	Bimetal thermostat	CS-12A	Tripping temperature: 110°C Resetting temperature: 90°C

4. SPECIFICATIONS OF ELECTRICAL PARTS

4.31 RAV-164AH-PE

No	PARTS NAME	TYPE	SPECIFICATIONS
1	Compressor	PG350X3F-4LS	Output (rated) 1.5kW, 2 pole, 220/240V, 1 Phase, 50Hz Winding Resistance: Common Run 1.17Ω at 20℃ Common Start 2.34Ω at 20℃
2	Outdoor Unit fan motor	SMF-230-39N-2	Output (rated) 39W, 6 pole, 230V, 1 Phase, 50Hz Winding Resistance: Common Run (Blk-Red) 97.1Ω at 25℃ Common Start (Blk-White) 97.5Ω at 25℃
3	Running capacitor for outdoor fan motor		AC 400V, 4μF
4	Magnetic contactor (Supplier: Fuji Electric)	FMCa-1S-02	AC 220-240V, 50Hz
5	High pressure switch	ACB-2TB04W	Tripping pressure 30kgf/cm^{2}G Resetting pressure 23kgf/cm^{2}G
6	Solenoid coil for four-way valve	CHV-AC240V	AC 220-240V
7	Crankcase heater		AC 240V, 28W
8	Sensor for defrosting		Maximum input 15.5mA ℃ -12 10 kΩ 67.5 21.3
9	Fuse		T5A
10	Sensor for cooling operation in low ambient temperature		Maximum input 15.5mA ℃ -12 10 kΩ 67.5 21.3
11	Solenoid coil for two-way valve	NEV AC 240V	AC 220-240V, 50Hz
12	Running capacitor for compressor		AC 440V, 45μF
13	Transformer (Outdoor Unit)	FT-67	AC 187-264V
14	Bimetal thermostat	CS-12A	Tripping temperature: 110℃ Resetting temperature: 90℃

4. SPECIFICATIONS OF ELECTRICAL PARTS

4.32 RAV-264AH-PE

No	PARTS NAME	TYPE	SPECIFICATIONS
1	Compressor	PG460X3F-4MS	Output (rated) 2.2kW, 2 pole, 220/240V, 1 Phase, 50Hz Winding Resistance: Common Run 0.78Ω at 20℃ Common Start 1.86Ω at 20℃
2	Outdoor Unit fan motor	SMF-230-63N-2	Output (rated) 63W, 6 pole, 230V, 1 Phase, 50Hz Winding Resistance: Common Run (Blk-Red) 79.4Ω at 25℃ Common Start (Blk-White) 106Ω at 25℃
3	Running capacitor for outdoor fan motor		AC 400V, 4μF
4	Magnetic contactor (Supplier: Fuji Electric)	FMCa-1S-02	AC 220-240V, 50Hz
5	High pressure switch	ACB-2TB04W	Tripping pressure 30kgf/cm^{2}G Resetting pressure 23kgf/cm^{2}G
6	Solenoid coil for four-way valve	CHV-AC240V	AC 220-240V
7	Crankcase heater		AC 240V, 28W
8	Sensor for defrosting		Maximum input 15.5mA ℃ -12 10 kΩ 67.5 21.3
9	Fuse		T5A
10	Sensor for cooling operation in low ambient temperature		Maximum input 15.5mA ℃ -12 10 kΩ 67.5 21.3
11	Solenoid coil for two-way valve	NEV AC 240V	AC 220-240V, 50Hz
12	Running capacitor for compressor		AC 420V, 60μF
13	Transformer (Outdoor Unit)	FT-67	AC 187-264V
14	Bimetal thermostat	CS-12A	Tripping temperature: 110℃ Resetting temperature: 90℃

4. SPECIFICATIONS OF ELECTRICAL PARTS

4.33 RAV-264AH8-PE

No	PARTS NAME	TYPE	SPECIFICATIONS
1	Compressor	YG460X3F-MS	Output (rated) 2.2kW, 2 pole, 380/415V, 3 Phase, 50Hz Winding Resistance: Common Run 4.28Ω at 20℃
2	Outdoor Unit fan motor	SMF-230-63N-2	Output (rated) 63W, 6 pole, 230V, 1 Phase, 50Hz Winding Resistance: Common Run (Blk-Red) 79.4Ω at 25℃ Common Start (Blk-White) 106Ω at 25℃
3	Running capacitor for outdoor fan motor		AC 400V, 4μF
4	Magnetic contactor (Supplier: Fuji Electric)	FMCa-1	AC 380-440V, 50Hz
5	High pressure switch	ACB-2TB04W	Tripping pressure 30kgf/cm^{2}G Resetting pressure 23kgf/cm^{2}G
6	Solenoid coil for four-way valve	CHV-AC240V	AC 220-240V
7	Crankcase heater		AC 240V, 28W
8	Sensor for defrosting		Maximum input 15.5mA ℃ -12 10 kΩ 67.5 21.3
9	Fuse		T5A
10	Sensor for cooling operation in low ambient temperature		Maximum input 15.5mA ℃ -12 10 kΩ 67.5 21.3
11	Solenoid coil for two-way valve	NEV AC 240V	AC 220-240V, 50Hz
12	Reverse Phase Protector		380/415V, 3 Phase, 50Hz
13	Transformer (Outdoor Unit)	FT-67	AC 187-264V
14	Bimetal thermostat	CS-12A	Tripping temperature: 110℃ Resetting temperature: 90℃

4. SPECIFICATIONS OF ELECTRICAL PARTS

4.34 RAV-364AH8-1-PE

No	PARTS NAME		TYPE	SPECIFICATIONS
1	Compressor		ZR48K3E-TFD-522	Output (rated) 3.88kW, 2 pole, 380/415V, 3 Phase, 50Hz Winding resistance 3.66Ω at 25˚C
2	Outdoor Unit fan motor	Top	SMF-230-63N-2	Output (rated) 63W, 6 pole, 230V, 1 Phase, 50Hz Winding Resistance: Common Run (Blk-Red) 79.4Ω at 25˚C Common Start (Blk-Whi) 106Ω at 25˚C
		Lower	SMF-230-39N-2	Output (rated) 39W, 6 pole, 230V, 1 Phase, 50Hz Winding Resistance: Common Run (Blk-Red) 97.1Ω at 25˚C Common Start (Blk-Whi) 97.5Ω at 25˚C
3	Running capacitor for outdoor fan motor (x2)			AC 400V, 4μF
4	Magnetic contactor (Supplier:TOGAMI)		CLK-35J	AC 440V, 50Hz
5	High pressure switch		ACB-2TB04W	Tripping pressure 30kgf/cm2G Resetting pressure 23kgf/cm2G
6	Solenoid coil		CHV-AC240V	AC 220-240V
7	Crankcase heater			AC 240V, 28W
8	Outdoor Unit for heat exchanger temperature			Maximum input 15.5mA ℃ -12 10 kΩ 67.5 21.3
9	Transformer for Outdoor Unit		FT-67	AC 187-264V
10	Fuse			T5A
11	Sensor for cooling operation in low ambient temperature			Maximum input 15.5mA ℃ -12 10 kΩ 67.5 21.3
12	Reverse Phase Protector			380/415, 3 Phase, 50Hz
13	Sensor for delivery pipe temperature			℃ 23 100 kΩ 57.0 3.4
14	Bimetal Thermostat		CS-12A	Tripping temperature: 110°C Resetting temperature: 90°C

4. SPECIFICATIONS OF ELECTRICAL PARTS

4.35 RAV-364AH8-PE

No	PARTS NAME		TYPE	SPECIFICATIONS			
1	Compressor		ZR49KCE-TFD-230 replaced by ZR49KCE-TFD-522	Output (rated) 3.0kW, 2 pole, 380/415V, 3 Phase, 50Hz Winding resistance 3.73Ω at 20˚C			
2	Outdoor Unit fan motor	Top	SMF-230-63N-2	Output (rated) 63W, 6 pole, 230V, 1 Phase, 50Hz Winding Resistance: Common Run (Blk-Red) 79.4Ω at 25˚C Common Start (Blk-Whi) 106Ω at 25˚C			
		Lower	SMF-230-39N-2	Output (rated) 39W, 6 pole, 230V, 1 Phase, 50Hz Winding Resistance: Common Run (Blk-Red) 97.1Ω at 25˚C Common Start (Blk-Whi) 97.5Ω at 25˚C			
3	Running capacitor for outdoor fan motor (x2)			AC 400V, 4μF			
4	Magnetic contactor (Supplier: Fuji Electric)		FC-2S	AC 440V, 50Hz			
	Magnetic contactor (Supplier: TOGAMI)		CLK-35J	AC 440V, 50Hz			
5	High pressure switch		ACB-2TB04W	Tripping pressure 30kgf/cm^{2}G Resetting pressure 23kgf/cm^{2}G			
6	Solenoid coil		CHV-AC240V	AC 220-240V			
7	Crankcase heater			AC 240V, 28W			
8	Outdoor Unit for heat exchanger temperature			Maximum input 15.5mA	℃	-12	10
					kΩ	67.5	21.3
9	Transformer for Outdoor Unit		FT-67	AC 187-264V			
10	Fuse			T5A			
11	Sensor for cooling operation in low ambient temperature			Maximum input 15.5mA	℃	-12	10
					kΩ	67.5	21.3
12	Reverse Phase Protector			380/415V, 3 Phase, 50Hz			
13	Sensor for delivery pipe temperature				℃	23	100
					kΩ	57.0	3.4

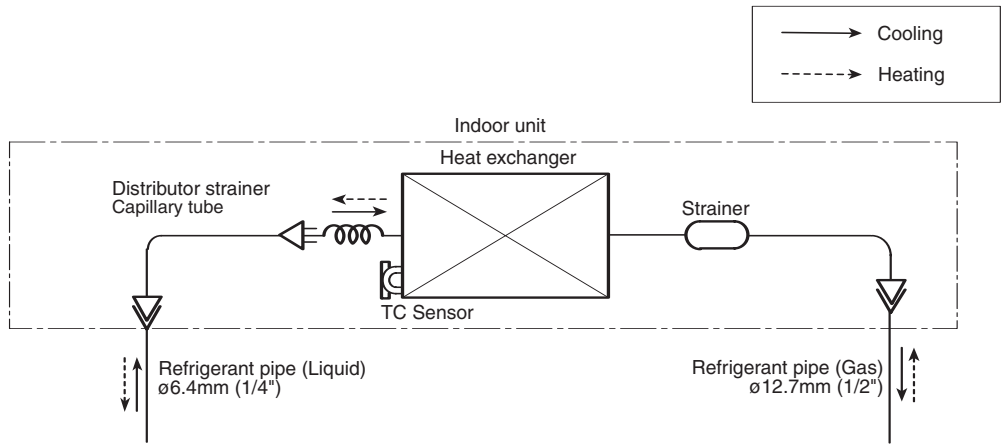
4. SPECIFICATIONS OF ELECTRICAL PARTS

4.36 RAV-464AH8-PE

No	PARTS NAME		TYPE	SPECIFICATIONS			
1	Compressor		ZR61KCE-TFD-230 replaced by ZR61KCE-TFD-522	Output (rated) 3.75kW, 2 pole, 380/415V, 3 Phase, 50Hz Winding resistance 2.19Ω at 20˚C			
2	Outdoor Unit fan motor	Top	SMF-230-63N-2	Output (rated) 63W, 6 pole, 230V, 1 Phase, 50Hz Winding Resistance: Common Run (Blk-Red) 79.4Ω at 25˚C Common Start (Blk-Whi) 106Ω at 25˚C			
		Lower	SMF-230-39N-2	Output (rated) 39W, 6 pole, 230V, 1 Phase, 50Hz Winding Resistance: Common Run (Blk-Red) 97.1Ω at 25˚C Common Start (Blk-Whi) 97.5Ω at 25˚C			
3	Running capacitor for outdoor fan motor (x2)			AC 400V, 4μF			
4	Magnetic contactor (Supplier: Fuji Electric)		FC-2S	AC 440V, 50Hz			
	Magnetic contactor (Supplier: TOGAMI)		CLK-35J	AC 440V, 50Hz			
5	High pressure switch		ACB-2TB04W	Tripping pressure 30kgf/cm^{2}G Resetting pressure 23kgf/cm^{2}G			
6	Solenoid coil		CHV-AC240V	AC 220-240V			
7	Crankcase heater			AC 240V, 28W			
8	Outdoor Unit for heat exchanger temperature			Maximum input 15.5mA	℃	-12	10
					kΩ	67.5	21.3
9	Transformer for Outdoor Unit		FT-67	AC 187-264V			
10	Fuse			T5A			
11	Sensor for cooling operation in low ambient temperature			Maximum input 15.5mA	℃	-12	10
					kΩ	67.5	21.3
12	Reverse Phase Protector			380/415V, 3 Phase, 50Hz			
13	Sensor for delivery pipe temperature				℃	23	100
					kΩ	57.0	3.4

5. REFRIGERANT PIPING DIAGRAMS

5.1 Indoor Unit
RAV-104SBH-PE
RAV-104NH-PE
RAV-104TUH/TUH-1-PE



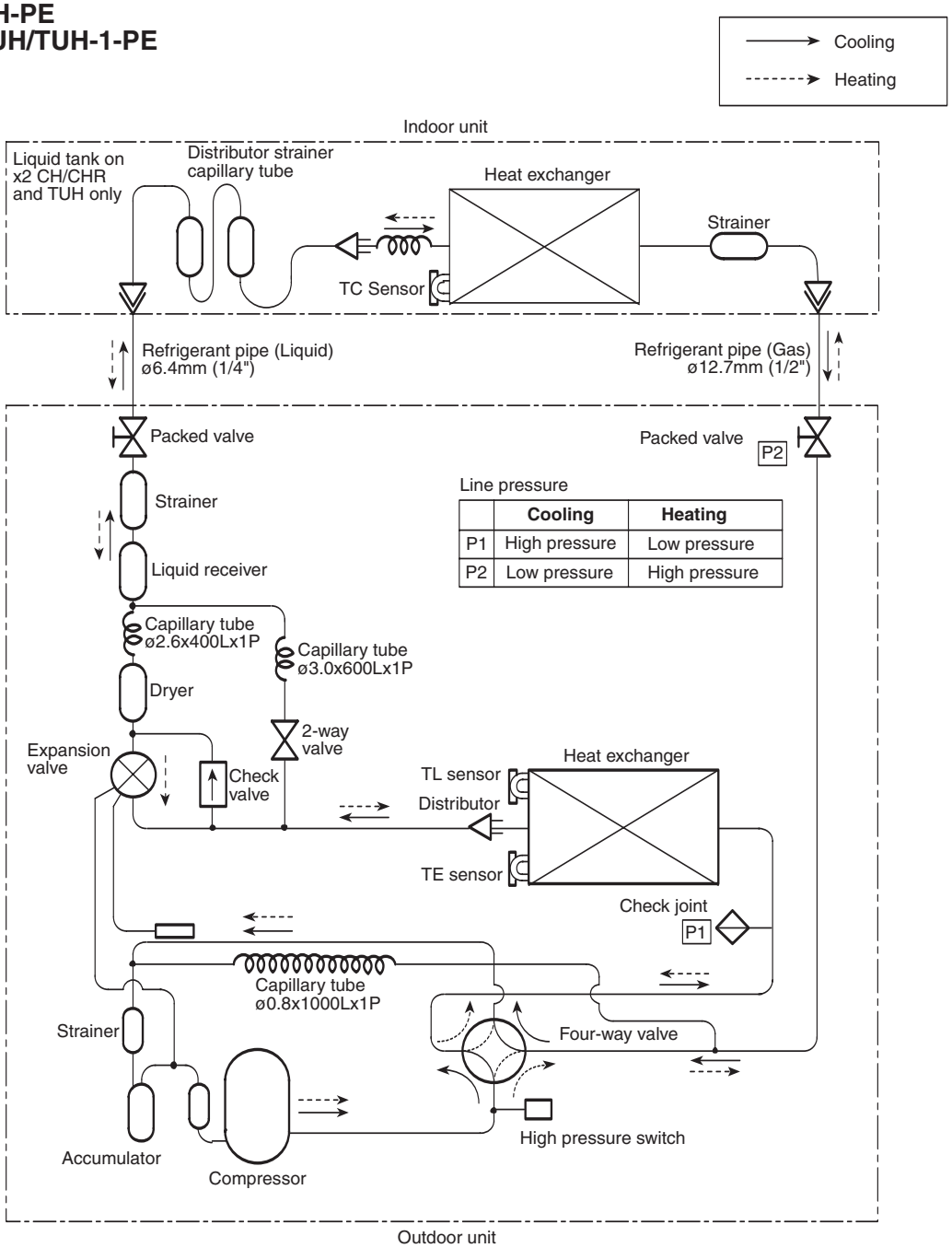
Model	Capillary
RAV-104SBH-PE	ø1.7x250Lx2P
RAV-104NH-PE	ø1.7x250Lx2P
RAV-104TUH/TUH-1-PE	ø2.4x300Lx2P

5. REFRIGERANT PIPING DIAGRAMS

5.2 Indoor Unit / Outdoor Unit

RAV-134CH/CHR-PE
RAV-134KH/KHR-PE
RAV-134NH-PE
RAV-134TUH/TUH-1-PE

RAV-134AH-PE



Line pressure

	Cooling	Heating
P1	High pressure	Low pressure
P2	Low pressure	High pressure

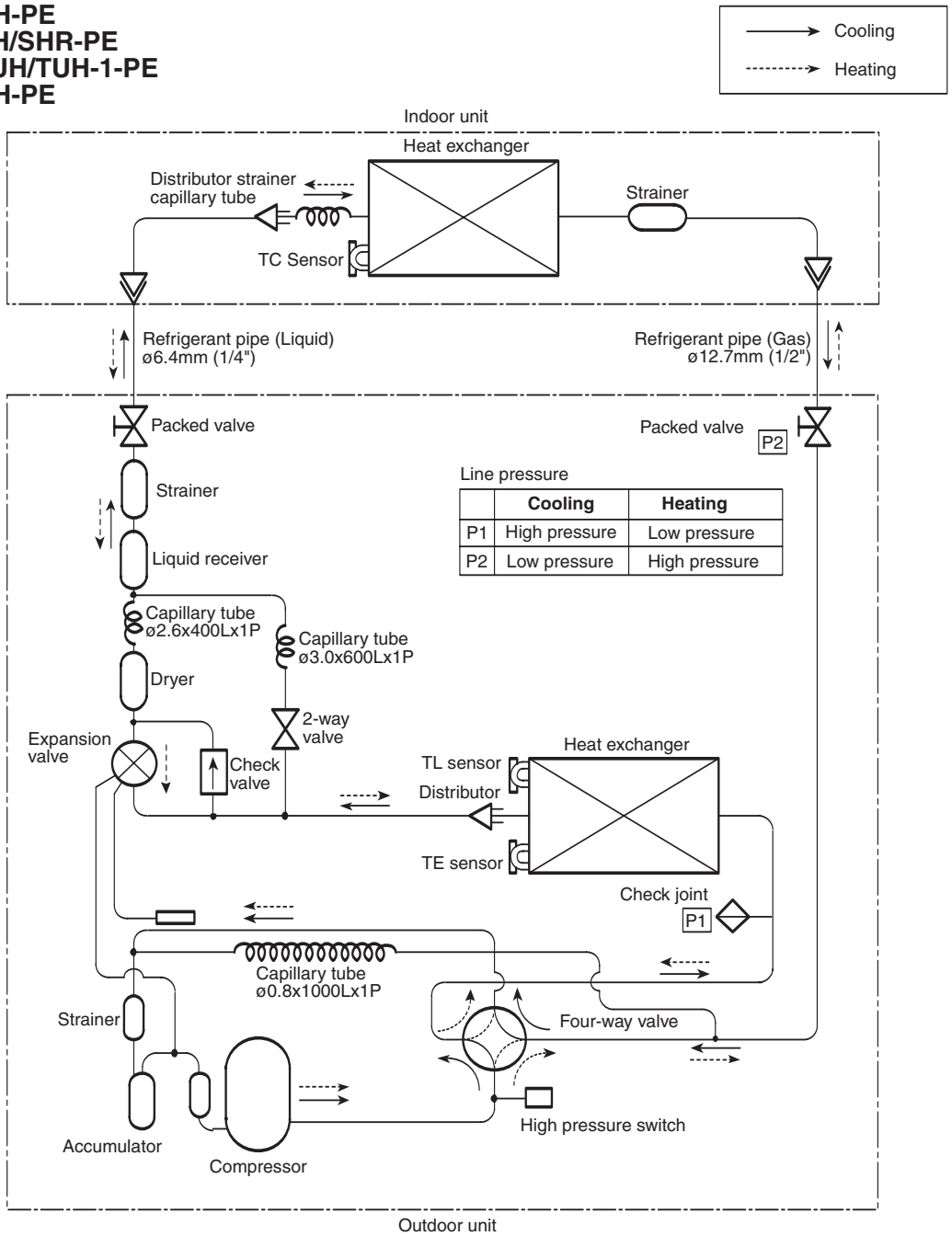
INDOOR UNIT		OUTDOOR UNIT			
Model	Capillary	Model	Main Capillary	Bypass Capillary	Cooling Bypass Capillary
RAV-134CH/CHR-PE	ø2.0x300Lx2P ø2.0x200Lx2P	RAV-134AH-PE	ø2.6x400Lx1P	ø0.8x1000Lx1P	ø3x600Lx1P
RAV-134KH/KHR-PE	ø1.7x300Lx2P ø1.7x400Lx2P				
RAV-134NH-PE	ø1.7x150Lx3P				
RAV-134TUH/TUH-1-PE	ø2.4x300Lx2P				

5. REFRIGERANT PIPING DIAGRAMS

5.3 Indoor Unit / Outdoor Unit

Indoor Unit
RAV-164BH-PE
RAV-164CH/CHR-PE
RAV-164KH/KHR-PE
RAV-164NH-PE
RAV-164SH/SHR-PE
RAV-164TUH/TUH-1-PE
RAV-164UH-PE

Outdoor Unit
RAV-164AH-PE



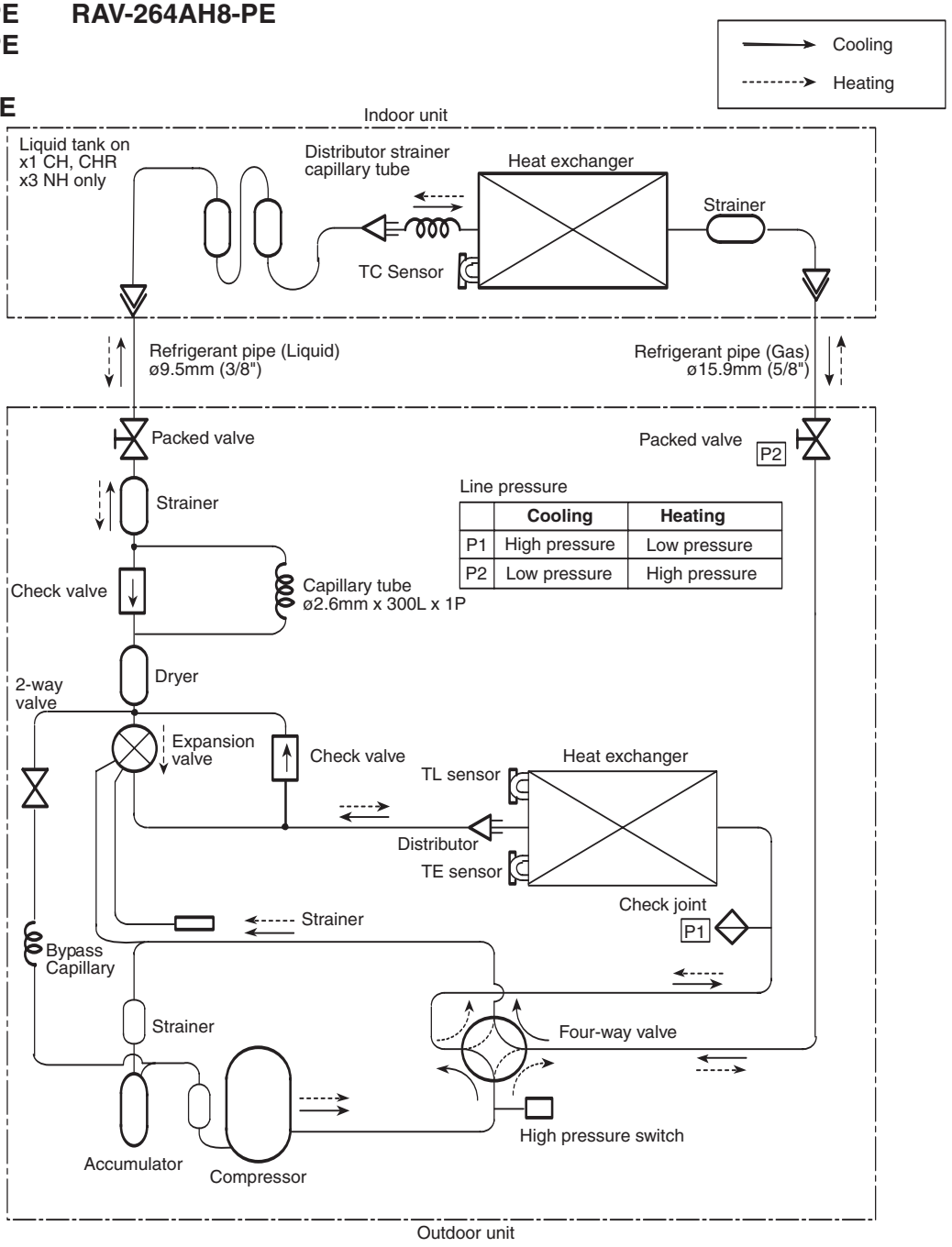
INDOOR UNIT		OUTDOOR UNIT			
Model	Capillary	Model	Main Capillary	Bypass Capillary	Cooling Bypass Capillary
RAV-164BH-PE	ø1.7x150Lx2P ø1.7x300Lx1P	RAV-164AH-PE	ø2.6x400Lx1P	ø0.8x1000Lx1P	ø3x600Lx1P
RAV-164CH/CHR-PE	ø1.7x300Lx2P ø1.7x400Lx2P				
RAV-164KH/KHR-PE	ø1.7x300Lx2P ø1.7x300Lx2P				
RAV-164NH-PE	ø1.7x200Lx3P ø1.7x300Lx1P				
RAV-164SH/SHR-PE	ø1.7x400Lx2P ø1.7x250Lx2P				
RAV-164TUH/TUH-1-PE	ø2.2x200Lx2P				
RAV-164UH-PE	ø2.0x200Lx3P				

5. REFRIGERANT PIPING DIAGRAMS

5.4 Indoor Unit / Outdoor Unit

RAV-264BH-PE
RAV-264CH/CHR-PE
RAV-264KH/KHR-PE
RAV-264NH-PE
RAV-264SH/SHR-PE
RAV-264UH-PE

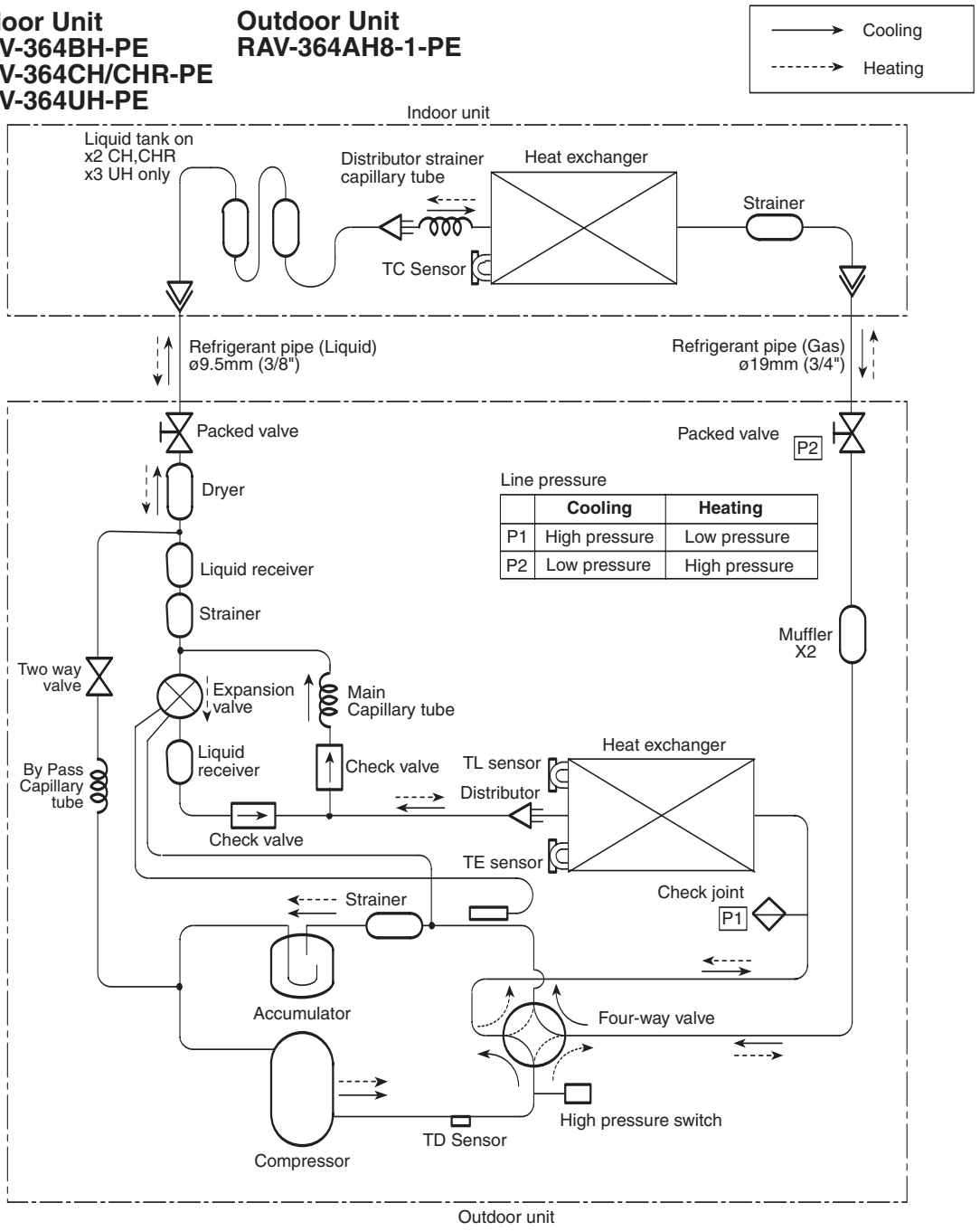
RAV-264AH-PE
RAV-264AH8-PE



INDOOR UNIT		OUTDOOR UNIT		
MODEL	CAPILLARY	MODEL	MAIN CAPILLARY	BYPASS CAPILLARY
RAV-264CH/CHR-PE	ø2.6x200x4P ø2.6x600x2P	RAV-264AH-PE RAV-264AH8-PE	ø2.6x300Lx1P	ø1.0x500Lx1P
RAV-264UH-PE	ø2.6x200x5P ø2.6x400x1P			
RAV-264BH-PE	ø2.6x200x4P ø2.6x400x2P			
RAV-264KH/KHR-PE	ø2.6x600x4P ø2.6x400x2P			
RAV-264NH-PE	ø2.6x200x5P ø2.6x400x1P			
RAV-264SH/SHR-PE	ø2.6x200x4P ø2.6x600x2P			

5. REFRIGERANT PIPING DIAGRAMS

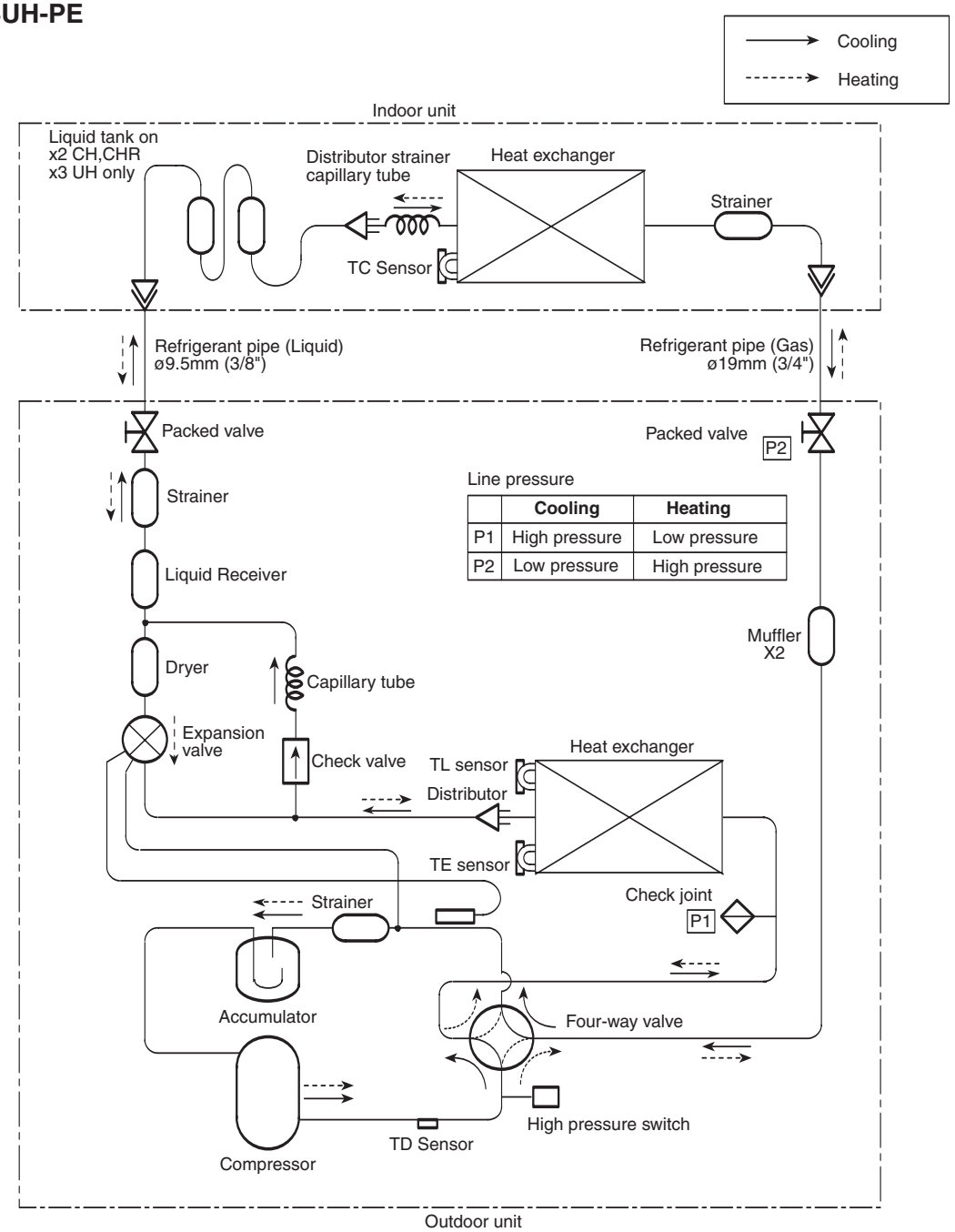
5.5 Indoor Unit RAV-364BH-PE RAV-364CH/CHR-PE RAV-364UH-PE — Outdoor Unit RAV-364AH8-1-PE



INDOOR UNIT		OUTDOOR UNIT		
MODEL	CAPILLARY	MODEL	MAIN CAPILLARY	BYPASS CAPILLARY
RAV-364BH-PE	ø2x400Lx6P	RAV-364AH8-PE	ø2.5x500Lx1P	ø1.5x300Lx1P
RAV-364CH/CHR-PE	ø2x300Lx7P			
RAV-364UH-PE	ø2.6x200Lx6P ø2.6x300Lx2P ø2.6x500Lx2P			

5. REFRIGERANT PIPING DIAGRAMS

5.6 Indoor Unit RAV-364BH-PE RAV-364CH/CHR-PE RAV-364UH-PE — Outdoor Unit RAV-364AH8-PE



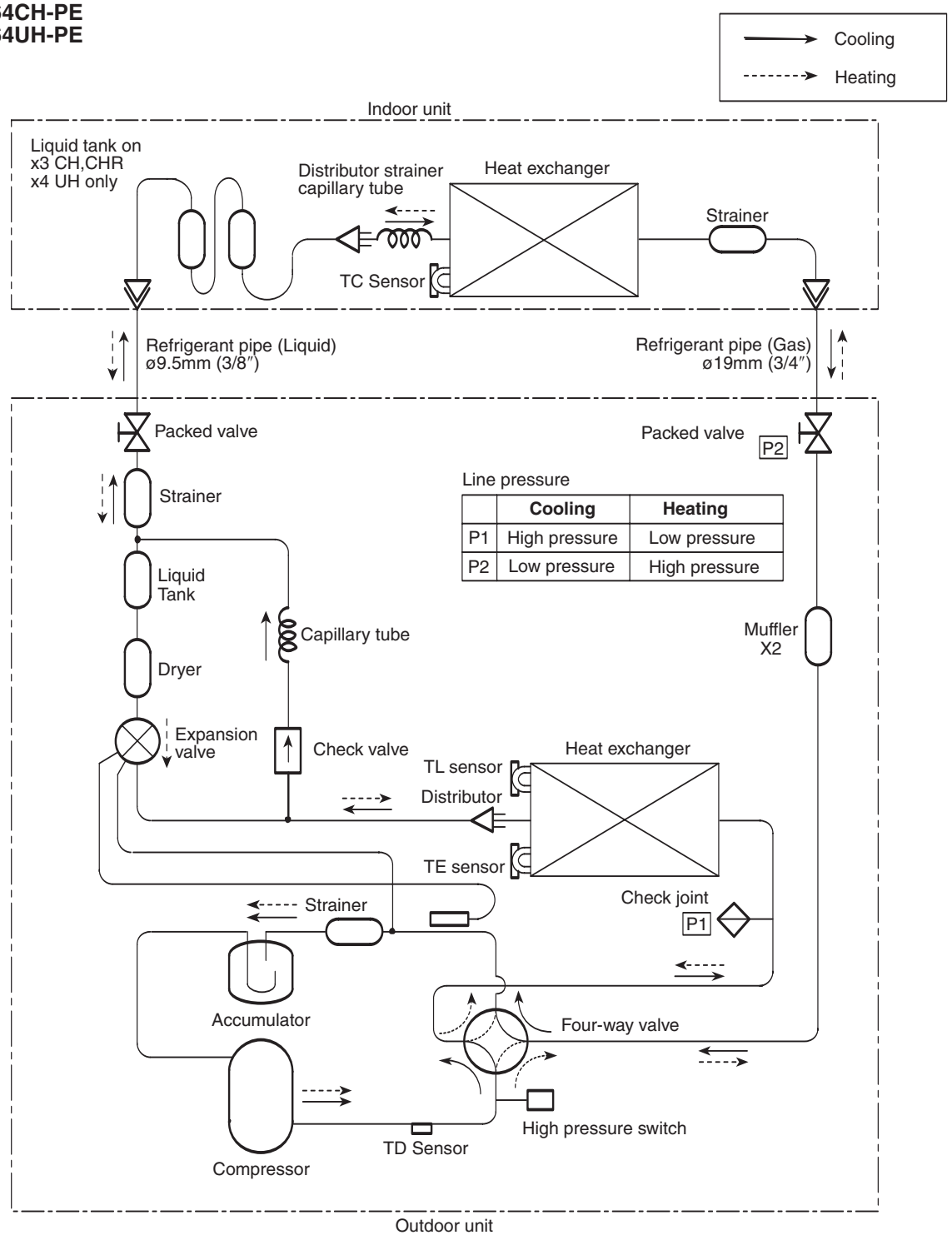
Line pressure

	Cooling	Heating
P1	High pressure	Low pressure
P2	Low pressure	High pressure

INDOOR UNIT		OUTDOOR UNIT	
MODEL	CAPILLARY	MODEL	MAIN CAPILLARY
RAV-364BH-PE	ø2x400Lx6P	RAV-364AH8-PE	ø2.5x500Lx1P
RAV-364CH/CHR-PE	ø2x300Lx7P		
RAV-364UH-PE	ø2.6x200Lx6P ø2.6x300Lx2P ø2.6x500Lx2P		

5. REFRIGERANT PIPING DIAGRAMS

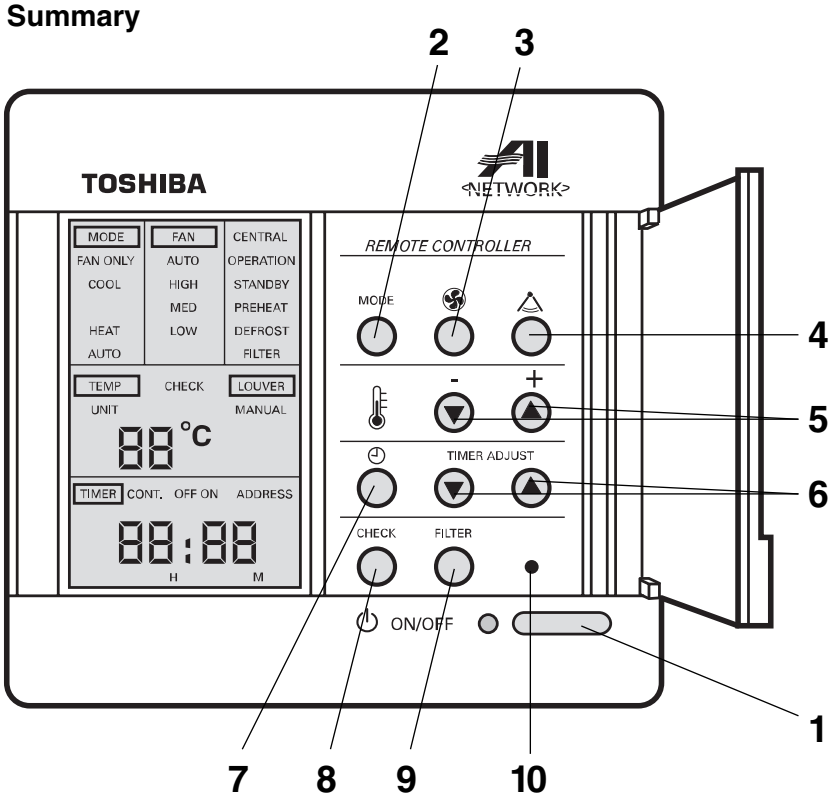
5.7 Indoor unit RAV-464BH-PE RAV-464CH-PE RAV-464UH-PE — Outdoor unit RAV-464AH8-PE



INDOOR UNIT		OUTDOOR UNIT	
MODEL	**CAPILLARY**	**MODEL**	**MAIN CAPILLARY**
RAV-464BH-PE	ø2.2x200Lx6P	RAV-464AH8-PE	ø3x600Lx1P
RAV-464CH/CHR-PE	ø2x200Lx8P		
RAV-464UH-PE	ø2.6x200Lx6P ø2.6x300Lx2P ø2.6x500Lx2P		

6. THE REMOTE CONTROLLERS

6.1 Remote Controller Summary
RBC-SR1-PE



BUTTON	INDICATOR		OPERATION
ON/OFF	LED	OPERATION	Run/Stop
MODE	MODE	FAN ONLY COOL HEAT AUTO	Fan only Cooling Heating Auto Changeover
	FAN	AUTO HIGH MED LOW	Auto Fan Speed Control High Fan Speed Medium Fan Speed Low Fan Speed
- +	TEMP	TEMP 88 °C	Temperature Setting
	LOUVER	LOUVER	Louvers start oscillation
	TIMER	TIMER CONT. OFF ON 88:88 H M	24H CYCLE Timer Off On

6. THE REMOTE CONTROLLERS

6.1.1 Outline of Remote Controller's Functions

NO.	KEY SWITCH	OUTLINE OF SPECIFICATION	REMARKS
1	[ON/OFF] ON/OFF	1. When this button is pushed once, the air conditioner is turned on, with this operation lamp coming on. 2. If pushed once more, it will be turned off, the operation lamp going off.	
2	MODE MODE	1. Each time this is pressed, the display changes in the following sequence: FAN ONLY – COOL – HEAT – AUTO	
3	FAN	1. Each time this is pressed, the display changes in the following sequence: AUTO – HIGH – MED – LOW	
4	LOUVER	1. When this is pressed, the louvers will start oscillation and the display will illuminate. 2. When it is pressed again, the louvers will stop.	For models with automatic louvers only, otherwise: LOUVER MANUAL will be displayed.
5	TEMP ADJUST - + 18-29℃	1. These buttons are used to set the required room temperatures.	18-29℃ Control range
6&7	TIMER ADJUST TIMER ADJUST	1. When the TIMER ADJUST button is pressed once, the time changes 10 minutes. If the button is held, the time changes in 1 hour steps. 2. If the operation LED is illuminated, the timer operation will start on completion of the setting. 3. If the operation LED is not illuminated, the timer operation will start on the operation of the ON/OFF button. 4. The remaining time can be seen throughout the timer operation.	On Timer or Off Timer only.
8	CHECK Display CHECK	1. This display appears when the air conditioner is in the CHECK mode. 2. Use the CHECK button for a malfunction check.	
9	FILTER FILTER	1. This display appears after 2500 hours of operation. Unit LAN address can be set using the [FILTER] button. 1. Press and hold the [FILTER] button for 5 seconds. The LCD display should change, as shown below: ADDRESS 88 2. Use the TIMER ADJUST button to select required address. 3. Press [FILTER] again to save address. *Note:* This facility is enabled by SW02 BIT7=OFF on the indoor PCB (Factory Default).	CHECK and FILTER buttons are for the use of Service Engineers.
10	RESET ON/OFF	1. By pressing the RESET Key, the remote controller is reset by way of hardware. (The setting/display are in initial values with the check memory cleared.)	Use a pointed object to operate the RESET Key.

6.1.2 Timer Operation

Continuous operation and timer operations are available. The setting of timer operation can be done as follows:

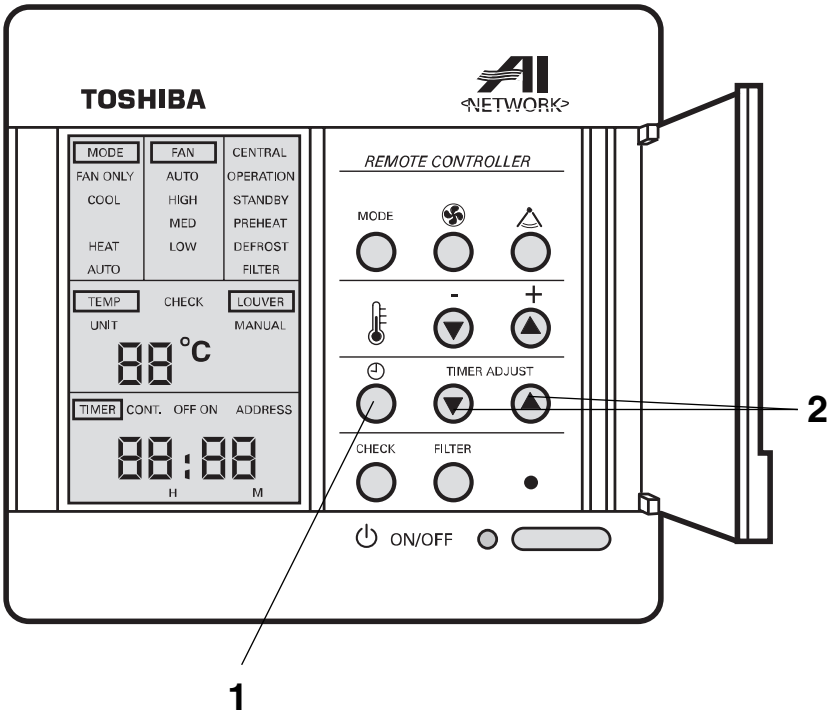
- Each time you press the button the display will change in the following sequence: OFF-ON-CONT.
- During timer operation, the remaining time is displayed. This is updated every minute.
- The timer operation range is from 10 minutes to 60 hours in 10 minute steps.

6.1.2.1 Timer Setup

1. TIMER Button ◴
This button selects the timer mode OFF, ON or CONTINUOUS.
Set the timer in the OFF or ON mode.

2. TIMER ADJUST (TIMER ADJUST ▼ ▲) Buttons
The ON or OFF times can be set by these buttons.

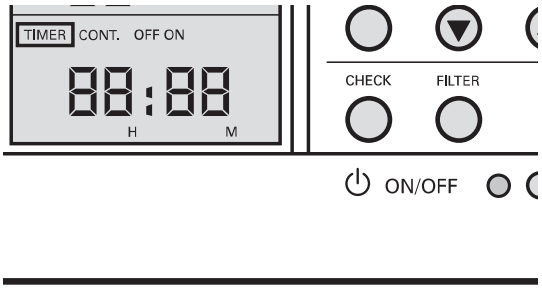
- When the TIMER ADJUST button is pressed once, the time changes by 10 minutes. If the button is held, the time changes in 1 hour steps.
- If the operation LED is illuminated, the timer operation will start on completion of the setting.
- If the operation LED is not illuminated, the timer operation will start on the operation of the ON/OFF button.
- The remaining time can be seen throughout the timer operation.



6.1.3 How to Set the Timer

The following can be chosen sequentially by pressing TIMER button ◴ :

A) TIMER OFF
B) TIMER ON
C) TIMER CONT.

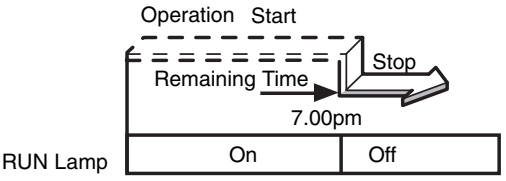


A) How to set OFF DELAY Timer

1) Time is set by the TIMER ADJUST ▽ △ buttons. The setting is finished when buttons are released.
2) Press TIMER button ◴, so that TIMER OFF is displayed.
3) Press the ON/OFF key. The LED lights and the operation starts with OPERATION displayed on the liquid crystal display.
4) When the preset [OFF] delay has elapsed, the operation stops and the LED and OPERATION display goes off with TIMER OFF displayed.

OFF timer
(START > STOP)

The air conditioner stops operation when the stop delay timer is up

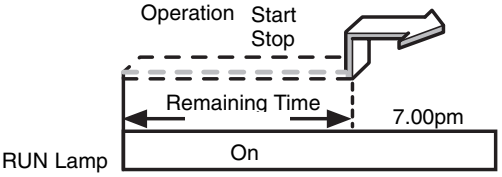


B) How to set ON DELAY Timer

1) Time is set by the TIMER ADJUST ▽ △ buttons. The setting is finished when buttons are released.
2) Press TIMER button ◴, so that TIMER ON is displayed.
3) Press the ON/OFF key. The LED lights. When the preset [ON] delay has elapsed, the unit starts and OPERATION appears on the liquid crystal display, and the TIMER ON display goes off.
4) To stop press the ON/OFF key. The LED and OPERATION display goes off.

ON timer
(STOP > START)

The air conditioner starts operation when the start delay timer is up



C) How to set CONTINUOUS Timer (reset Timer)

1) Press TIMER button ◴, so that TIMER CONT. is displayed. After 2 seconds the TIMER CONT. display goes off.
2) Press the ON/OFF key. The LED lights and the operation starts with OPERATION displayed on the liquid crystal display.
3) The unit will continuously operate until the ON/OFF key is pressed, or TIMER ON/OFF operations restarted.

Note: For daily or weekly control there is the RBC-WT1-PE (7-Day Timer).

To Stop the Timer Operation

- Push the ON/OFF button.
- The LED goes off and the air conditioner stops, even if the set time is not reached.
- The set ON or OFF will be saved.

To Clear the Timer

- Push the TIMER button.
- When the TIMER is pressed, the timer operation is suspended.

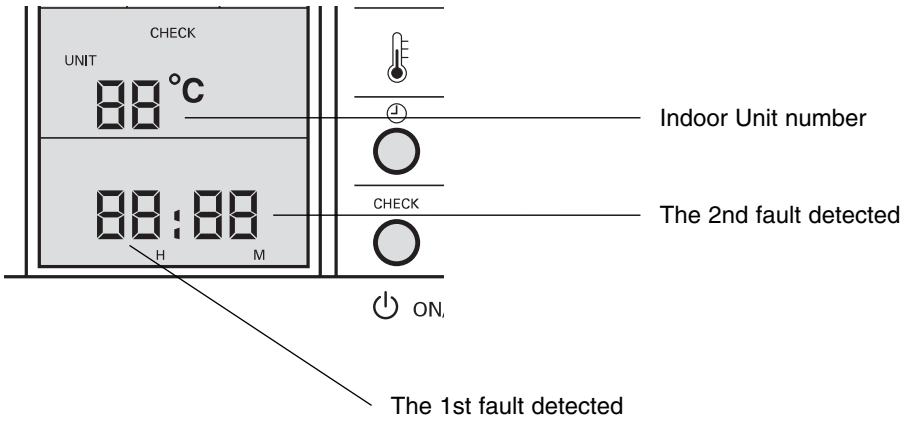
To Change the Set Time

- Follow steps 1 and 2 above. Pressing ON/OFF will then adjust the timer.
- The operation LED illuminates and the newly set timer operation starts.

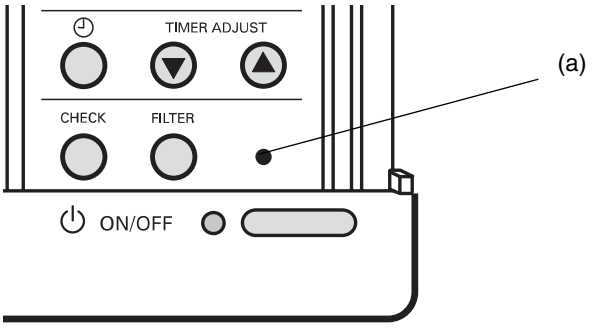
6.1.4 Malfunction Check Display

The following fault code display occurs when the CHECK button is pressed for 1 second.

- Fault codes can be identified from the remote controller or Outdoor Unit. (LED status)
- Up to 16 Indoor Units can be connected to one remote controller using group control.
- A maximum of 2 fault codes for each of the 16 Indoor Units can be displayed at 2 second intervals.



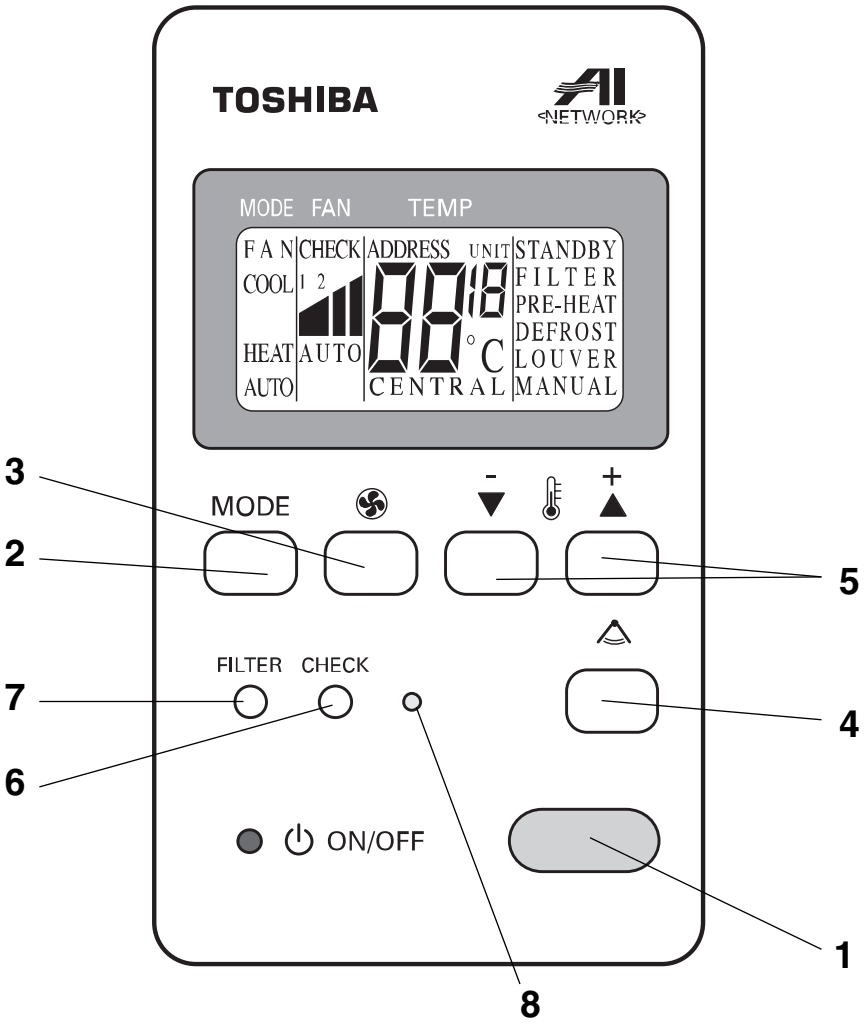
(a) RESET key. Use a pointed object to operate the RESET key. This will reset the remote controller (to the initial setting). All faults codes erased.



6. THE REMOTE CONTROLLERS

6.2 Remote Controller Summary

RBC-SR2-PE



BUTTON	INDICATOR		OPERATION
ON/OFF	LED		Run/Stop
MODE	MODE	FAN COOL HEAT AUTO	Fan Cooling Heating Auto Changeover
	FAN	AUTO HIGH MED LOW AUTO	Auto Fan Speed Control High Fan Speed Medium Fan Speed Low Fan Speed
	TEMP	88 °C	Temperature Setting
	LOUVER	LOUVER	Louvers start oscillation

6. THE REMOTE CONTROLLERS

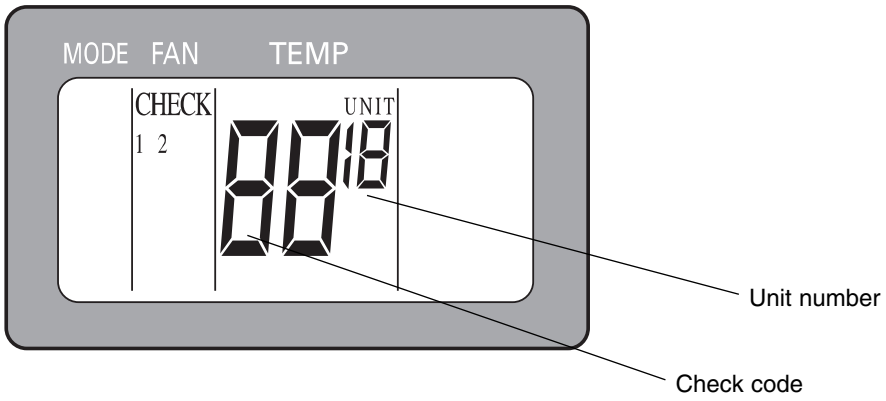
6.2.1 Outline of Remote Controller's Functions

NO.	KEY SWITCH	OUTLINE OF SPECIFICATION	REMARKS
1	[ON/OFF] ON/OFF	1. When this button is pushed once, the air conditioner is turned on, with this operation lamp coming on. 2. If pushed once more, it will be turned off, the operation lamp going off.	
2	MODE MODE	1. Each time this is pressed, the display changes in the following sequence: FAN – COOL – HEAT – AUTO	
3	FAN SPEED	1. Each time this is pressed, the display changes in the following sequence: AUTO – LOW – MED – HIGH AUTO	
4	LOUVER	1. When this is pressed, the louvers will start oscillation and the display will illuminate. 2. When it is pressed again, the louvers will stop.	For models with automatic louvers only, otherwise: LOUVER MANUAL will be displayed.
5	TEMP ADJUST - +	1. These buttons are used to set the required room temperatures.	18-29°C Control range
6	CHECK display CHECK	1. This display appears when the air conditioner is in the CHECK mode. 2. Use the CHECK button for a malfunction check.	
7	FILTER FILTER	1. This display appears after 2500 hours of operation.	
		Unit LAN address can be set using the [FILTER] button. 1. Press and hold the [FILTER] button for 5 seconds. The LCD display should change, as shown below: 2. Use the TIMER ADJUST button to select required address. 3. Press [FILTER] again to save address. *Note:* This facility is enabled by SW02 BIT7=OFF on the indoor PCB (Factory Default).	CHECK and FILTER buttons are for the use of Service Engineers.
8	RESET	1. By pressing the RESET Key, the remote controller is reset by way of hardware. (The setting/display are in initial values with the check memory cleared.)	Use a pointed object to operate the RESET Key.

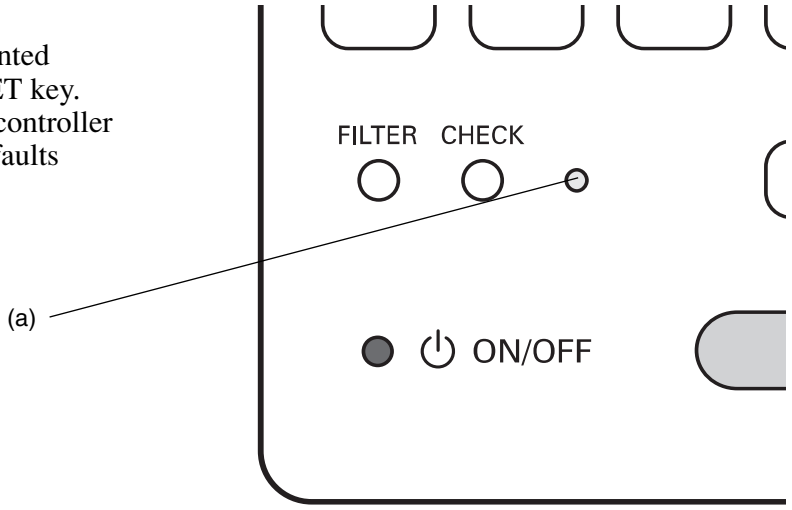
6.2.2 Malfunction Check Display

The following fault code display occurs when the CHECK button is pressed for 1 second.

- Fault codes can be identified from the remote controller or Outdoor Unit. (LED status)
- Up to 16 Indoor Units can be connected to one remote controller using group control.
- A maximum of 2 fault codes for each of the 16 Indoor Units can be displayed at 2 second intervals.



(a) RESET key. Use a pointed object to operate the RESET key. This will reset the remote controller (to the initial setting). All faults codes erased.

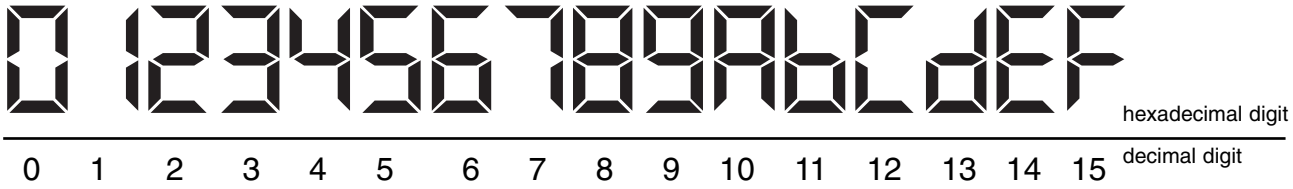


6.3 How to Read Malfunction Check Monitor Display

By pressing [CHECK] key, the check code information of up to 2 faults x 16 units are displayed on the time display area. (2 sec. Per one phenomenon) in hexadecimal format.

*Use the fault code tables in section 6.4 to explain the meaning of Fault Codes.

Hexadecimal Format



6.4 List of Check Codes

DIAGNOSTIC FUNCTIONS			JUDGEMENT AND ACTION
CHECK CODE	**SYMPTON**	**STATUS OF AIR CONDITIONER**	
0C	ROOM TEMP. SENSOR (TA) Out of place, break, short-circuit	Operation continuing	1. Check the indoor temp. sensor 2. Check the indoor PCB.
0d	INDOOR HEAT-EXCHANGER SENSOR (TC) Out of place, break, short-circuit	Operation continuing	1. Check the indoor heat-exchanger sensor. 2. Check the indoor PCB.
04	RETURNING SIGNAL NOT COMING TO INDOOR 1) Wrong wiring in connecting cable (serial signal).	Operation continuing	1. If Outdoor Unit does not work at all. (1) Check the connecting cable for incorrect wiring. (2) Check the outdoor PCB. 2. It operates normally. Between indoor terminal plates 2 and 3, return signal is: Available: Check the indoor PCB. Not available: Check the outdoor PCB.
08	4-WAY VALVE SYSTEM 1) Indoor heat-exchanger temperature rises, after starting cooling operation. 2) Indoor heat-exchanger temperature drops after starting heating operation.	Operation continuing	1. Check the 4-way valve. 2. Check the 2-way valve and check valve. 3. Fault with indoor heat exchanger sensor. 4. Check the indoor PCB.
09	OTHER CYCLE SYSTEM 1) Indoor heat exchange temperature does not change after starting cooling/heating operation.	Operation continuing	1. Compressor case thermostat, IOL, OL operation. (contactor OFF, compressor stops: AH8 Models) (contactor ON, compressor stops: AH Models) 2. Indoor heat-exchange sensor out of place. 3. Check the indoor PCB 4. Check that service valves are OPEN.
	2) When transmitting instruction for stopping compressor by freeze preventing control.	Outdoor Unit stops (indoor fan L)	1. Check the charged amount of refrigerant gas. (Gas shortage→gas supplement, check for gas leaks) 2. Indoor fan locked.
18	DEFROST SENSOR (TE) Out of place, break, short-circuit.	Full Stop	1. Check the defrosting sensor. 2. Check the outdoor PCB.

6. THE REMOTE CONTROLLERS

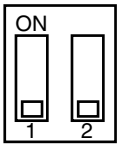
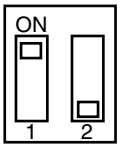
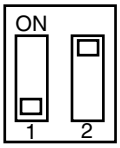
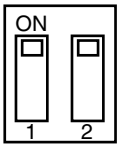
DIAGNOSTIC FUNCTIONS			JUDGEMENT AND ACTION
CHECK CODE	SYMPTON	STATUS OF AIR CONDITIONER	
19	OUTDOOR HEAT-EXCHANGER SENSOR (TL) Out of place, break, short-circuit.	Full Stop	1. Check the outdoor heat-exchanger sensor. 2. Check the outdoor PCB.
21	HIGH PRESSURE SWITCH High pressure switch does not reset. { 5 sec in cooling 30 sec in heating }	Full Stop	1. Check the high pressure switch. 2. Check the outdoor PCB.
1C	OTHER ABNORMALITY OF OUTDOOR UNIT Compressor does not operate. Start once, but soon after stop by OCR.	Full Stop	1. Check the compressor. 2. Check the wiring of compressor. (lack of phase, short circuit) 3. Check the voltage. 4. Check the outdoor PCB.
99	WRONG WIRING OF REMOTE CONTROL UNIT Indoor Unit does not operate at all.	Full Stop	1. Check the wiring between remote control unit and Indoor Unit. 2. Check the indoor unit PCB.
06*	FLOAT SWITCH Float circuit out of position, break.	Outdoor Unit stops	1. Fault in drain pump. 2. Drain pipe clogged. 3. Check for indoor PCB.

**With drain pump unit only*

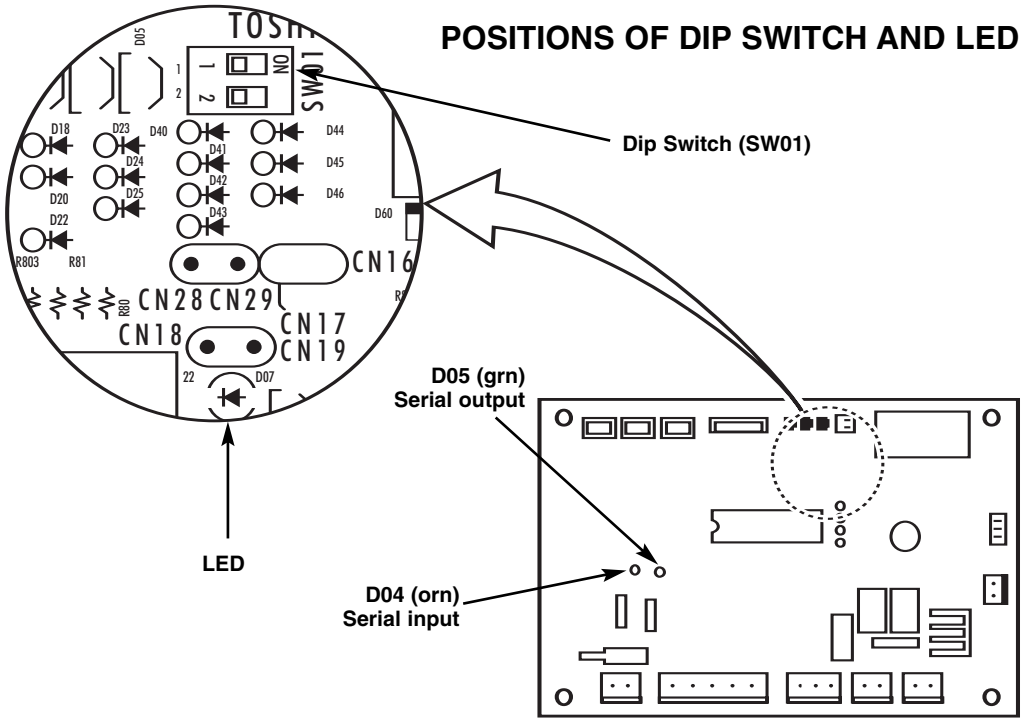
6.5 Malfunction Check

6.5.1 Using LED Display on Outdoor PC Board

LED display vs. check code

Table No.	Dip Switch Settings (DSW01)	LED			
		1 (RED)	2 (YELLOW)	3 (YELLOW)	4 (YELLOW)
Table 1					21 High pressure switch fault.
Table 2		18 Temp. sensor (TE) faulty. 19 Temperature sensors/TD/TL open/short circuit.		Number of protective device operations.	
Table 3		Serial input data			
Table 4		Serial input data			

POSITIONS OF DIP SWITCH AND LED



6. THE REMOTE CONTROLLERS

Table 1

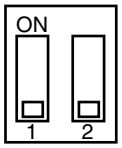
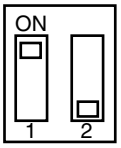
Dip Switch Settings	LED 1	LED 2	LED 3	LED 4	JUDGEMENT	
	●	●	●	●	Normal operation	
	◔	●	●	●	Timer short	
						Full stop
	○	○	○	◔	21 High pressure switch fault	
	○	○	○	○	18, 19 Fault codes (refer to **Table 2**)	

Table 2

Dip Switch Settings	LED 1	LED 2	LED 3	LED 4	JUDGEMENT	
	●	●	●	●	Normal operation	
	●	●	●	○	Number of protective device operations: one	
	●	◔	○	◔	Number of protective device operations: two	
	●	◔	○	○	Number of protective device operations: three	
	LEDs 3 & 4 flashing (1Hz) faults shown below		◑	◑	Number of protective device operations: four	
	◔	○	◑	◑	18 Temperature sensor (TE) faulty 19 Temperature sensors (TD/TL) open/short circuit	Full stop
	○	○	◑	◑	21 High pressure switch faulty	

LED Status

- ○ : on
- ◔ : :5Hz flash
- ◑ : :1Hz flash
- ● : off

6. THE REMOTE CONTROLLERS

Table 3

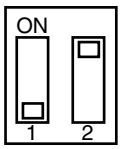
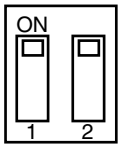
Dip Switch Settings	LED				STATUS OF COMPRESSOR
	1	2	3	4	Stop
	●	●	●	●	Operating
	●	●	○	○	
	●	○	●	●	
	●	○	●	○	
	●	○	○	●	
	●	○	○	○	
	○	●	●	●	
	○	●	●	○	
	○	●	○	●	
	○	●	○	○	
	○	○	●	●	
	○	○	●	○	
	○	○	○	●	
	○	○	○	○	

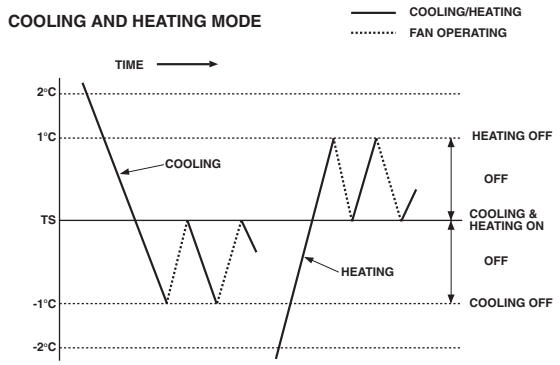
Table 4

Dip Switch Settings	LED				STATUS OF COMPRESSOR
	1	2	3	4	Stop
	●	●	●	●	Operating
	●	●	○	○	
	●	○	●	●	
	●	○	●	○	
	●	○	○	●	
	●	○	○	○	
	○	●	●	●	
	○	●	●	○	
	○	●	○	●	
	○	●	○	○	
	○	○	●	●	
	○	○	●	○	
	○	○	○	●	
	○	○	○	○	

7. OUTLINE OF CONTROL CIRCUIT

<table>
<tr><th>NO.</th><th>ITEM</th><th>OUTLINE OF SPECIFICATION</th><th>REMARKS</th></tr>
<tr><td>1</td><td>Operation change-over</td><td>Operation mode is changed according to operation mode instruction sent from the remote controller.

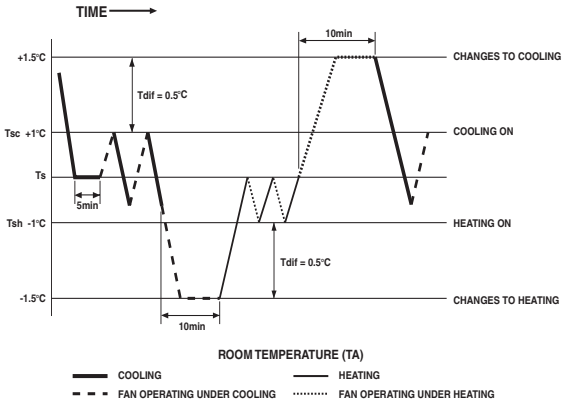
<table>
<tr><th>REMOTE CONTROLLER INSTRUCTION</th><th>OUTLINE OF CONTROL</th></tr>
<tr><td>Stop</td><td>Stopping air conditioner</td></tr>
<tr><td>Auto</td><td>Performing automatic change-over</td></tr>
<tr><td>Cool</td><td>Performing cooling operation</td></tr>
<tr><td>Heat</td><td>Performing heating operation</td></tr>
<tr><td>Fan only</td><td>Performing fan only operation</td></tr>
</table></td><td></td></tr>
<tr><td>2</td><td>Controlling room temperature</td><td>2-1 Operating range (°C)
<table>
<tr><th></th><th>In Cooling</th><th>In Heating</th></tr>
<tr><td>remote controller setting temperature</td><td>18-29</td><td>18-29</td></tr>
<tr><td>Operating temperature</td><td>18-32</td><td>15-29</td></tr>
</table></td><td></td></tr>
<tr><td></td><td></td><td>2-2 Cooling mode and Heating mode
The compressor will be switched on or off according to the diagram below. Where an Indoor Unit is connected to a super multi system a variable demand will be transmitted dependant on the difference between the TA and Ts Values.



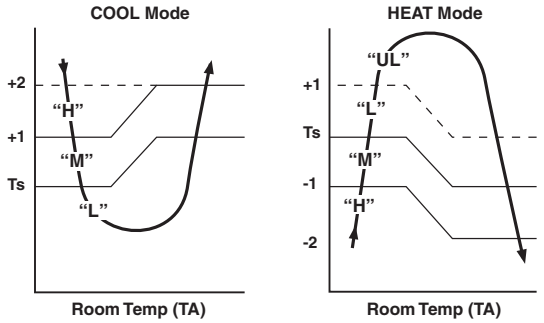
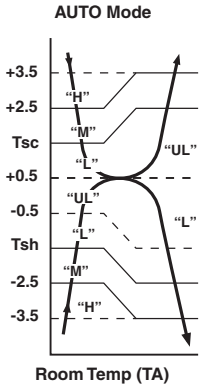
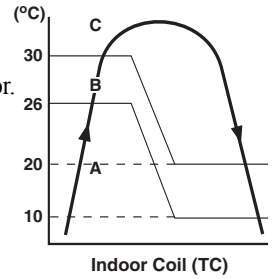
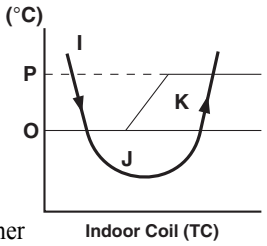
Cooling mode
When the temperature rises above value of TS, the compressor starts, when the TA sensor detects a value equal to TS-1℃ at this point the compressor will stop. If the temperature rises above TS the compressor will start again.

Heating mode
When the temperature falls to a value below TS the compressor starts, when it rises to TS +1℃ the compressor will stop. If the temperature falls below TS the compressor will start again.</td><td>TA: Room Temperature
TS: Set Temperature</td></tr>
</table>

7. OUTLINE OF CONTROL CIRCUIT

		2-3 Auto Mode Cooling When the temperature at the TA sensor rises to a value over TSC (Ts +1℃) the compressor starts. The unit operates in cooling until the TA sensor detects a value equal to TS –0.5°C. At this point, the compressor operation stops if compressor run time is greater than 5 minutes otherwise the compressor will continue until the 5 minutes run time has elapsed. If auto fan speed has been selected, the fan will run in Low speed. If the temperature rises above TSC, the compressor will start again. If the temperature falls and remains below Ts -1.5℃ for over ten minutes, then the system will enter Heating Mode. **Auto Mode Heating** When the temperature sensed at TA falls to a value under TSH (TS -1°C) the compressor will start. The unit operates in heating until the TA sensor detects a value equal to TS. At this point, the compressor operation stops. The indoor fan speed reverts to ultra low. If the temperature falls below TSH, the compressor will start again. If the temperature rises and remains above Ts +1.5℃ for over ten minutes, then the system will enter Cooling Mode.  	TA: Room Temperature TS: Set Temperature
	Correcting temperature compensation	**2-4** Room temperature controlled in the heating operation can be corrected by dip switch SW03 on indoor PCB. Dip Switch setting: BIT 1 / BIT 2 ON / ON — 0 deg ON / OFF — 2 deg* OFF / ON — 4 deg OFF / OFF — 6 deg This can be used where the air conditioner is located in a high ceiling. * *Factory Default*	

7. OUTLINE OF CONTROL CIRCUIT

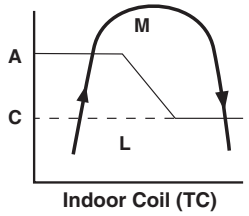
NO.	ITEM	OUTLINE OF SPECIFICATION	REMARKS
3	Fan speed control	3-1 [AUTO], [HIGH], [MED], [LOW] are available, 3-2 In the auto fan. The fan speed is changed by the difference between Ta, Ts, as shown below.  	Whilst in heating mode, and the compressor is turned off, the fan speed can be [Ultra Low] or [Stop] (See note 4).
4	Cold draft prevention control	When performing heating operation, indoor fan control is carried out as follows based on temperature detection of Tc sensor. C zone: Depending upon fan speed setting of the remote controller B zone: Indoor fan at Low A zone: Fan stop 	Tc is used to prevent cold drafts Tc = Indoor coil sensor
5	Freeze preventing control (Low temp. release)	When performing cooling operation, indoor fan control is carried out as follows based on temperature detection of Tc sensor. 1- When starting the operation, the point P is made +3℃. 2- When [J] zone is detected, timer counting starts. 3- When [K] zone is detected, timer count is stopped and held on. 4- When [I] zone is detected, timer is cleared and returns back to ordinary operation. 5- When timer count becomes full time, the Outdoor Unit stops and the point P is changed to +12℃ to be covered by check display. When [I] zone is reached (12°C), the temperature is returned back to +3℃. 	Full time MIN 7 min. MAX 20 min.

7. OUTLINE OF CONTROL CIRCUIT

<table>
<tr><th>NO.</th><th>ITEM</th><th>OUTLINE OF SPECIFICATION</th><th>REMARKS</th></tr>
<tr><td>6</td><td>High temperature release control</td><td>
When performing heating operation, the following control is executed based on the temperature detected by the Tc sensor.

1- In [M] zone, release signal is transmitted. Out door fan is controlled in accordance with the diagrams below

2- The control point for A and C can be chosen from the below table:



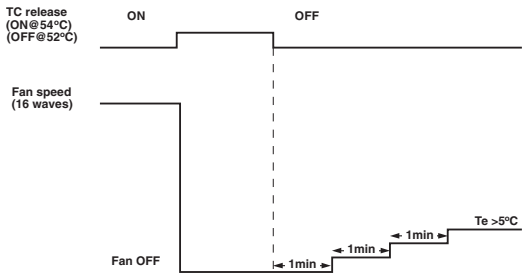
<table>
<tr><td>Dip Switch setting
BIT 3
BIT 4</td><td>ON
ON</td><td>ON
OFF</td><td>OFF
ON</td><td>OFF
OFF</td></tr>
<tr><td>A/C (°C)</td><td>50/48</td><td>52/50</td><td>54/52*</td><td>–</td></tr>
</table>

* Factory Default

It is recommended that the above settings are not adjusted.

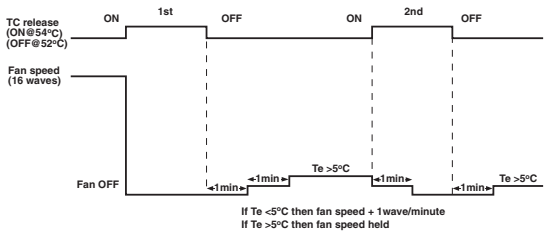
Note: 1st Release from power-up is at 52/50°C, thereafter it is a 54/52°C.

<u>Single Release</u>

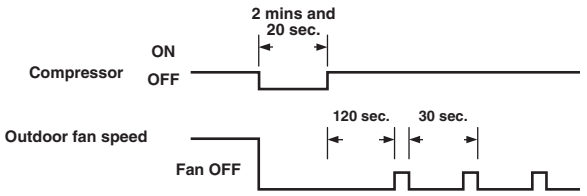
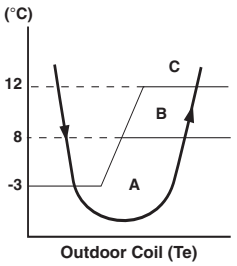


On receiving first release signal ON, the fan speed is changed from 16 waves to min speed (AH-803=Fan off). After receiving release signal OFF, there is a 1 minute delay and then fan speed is increased by 1 wave every minute until Te >5°C at which point the fan speed is held.
</td><td></td></tr>
</table>

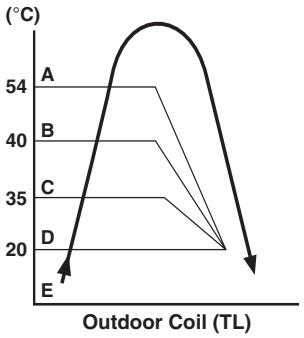
7. OUTLINE OF CONTROL CIRCUIT

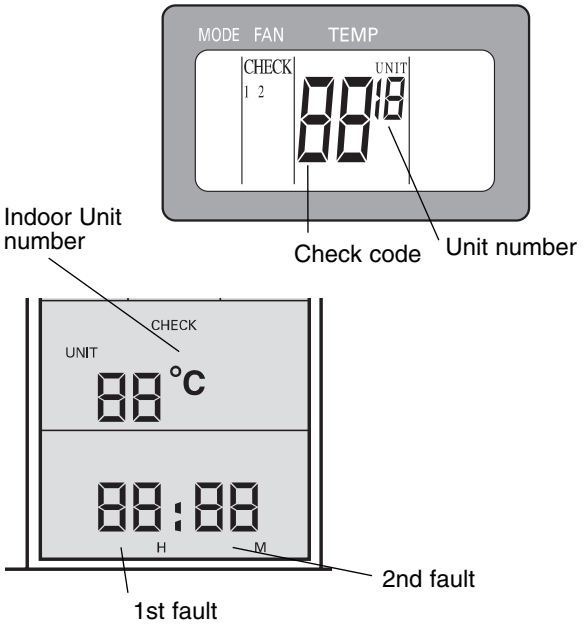
NO.	ITEM	OUTLINE OF SPECIFICATION	REMARKS
		Duplicate Release  A subsequent release signal ON reduces the fan speed by one wave/minute and continues to do so while release signal stays ON. (Min.speed=fan off) When release signal OFF is transmitted then after 1 minute fan speed will be increased by one wave every minute, until Te>5°C. **Reset operation** When Reset operation: When the fan speed returns to maximum and the Te temp is <5°C then the operation goes back to normal, and the fan speed is held constant.	

7. OUTLINE OF CONTROL CIRCUIT

NO.	ITEM	OUTLINE OF SPECIFICATION	REMARKS
7	Test operation	To enable system testing it is possible to force cool or heat irrespective of room temperature. To enable this function, select required system mode using the [MODE] button. Then turn on the remote controller by holding the [ON/OFF] button continuously for 5 seconds. The unit will enter test run mode with the indoor fan on [HIGH].	
8	High pressure release	The following control is performed when high-pressure switch of the Outdoor Unit is actuated. 1- In cooling operation Compressor is turned off and if the high pressure switch does not reset within 5 seconds, it is judged abnormal. 2- In heating operation Compressor is turned off and if the pressure switch does not reset within 30 seconds, it is judged abnormal. If the switch resets within 30 sec., the compressor restarts 2 minutes and 20 sec later and operates according to the diagram below.  3- In defrosting operation Compressor is turned off, the defrost operation is cancelled and returns back to heating operation.	<Outdoor Unit control> LED lamp comes on in abnormal condition, with abnormal code transmitted to Indoor Unit.
9	Protection if Mg SW is thought to be fused.	If the high pressure SW continues to operate for 5 seconds after the compressor has stopped, fusing of Mg-SW is detected and the outdoor fan is controlled as de scribed below. 1- When the four-way valve is OFF (including during defrosting operation) Turn ON the outdoor fan at maximum. 2- When the four-way valve is ON Turn OFF the outdoor fan. (When the compressor has stopped, the outdoor fan should be OFF).	
10	Defrosting	1- In heating operation, defrosting is made based on outdoor heat exchange temperature Te, 2- When cumulative working time of compressor is [A] zone has amounted to 55 minutes, defrosting operation starts, (25 minutes initially)  3- The longest defrosting time is 12 minutes. 60 seconds in the case of turning into [B] zone, and immediately returning back to heating mode when [C] zone is reached.	<Outdoor Unit control>
11	Four-way valve reversal control	The following control shall be performed when the compressor stops: 1- The 4-way valve in the hold state shall be reserved 10 seconds before the restart delay timer counts the maximum count (2 minutes 20 seconds). 2- After the restart delay timer counts the maximum value, the specified mode shall be selected.	

7. OUTLINE OF CONTROL CIRCUIT

<table>
<tr><th>NO.</th><th>ITEM</th><th>OUTLINE OF SPECIFICATION</th><th>REMARKS</th></tr>
<tr><td>12</td><td>Low ambient cooling</td><td>
12-1 Control of the Outdoor Unit fan is made to meet with cooling demand at low outdoor temperatures. It is based on the outdoor heat exchanger temperature, TL.
12-2 Control by outdoor heat exchanger temperature TL is illustrated on the right.
12-3 For first 30 seconds after starting cooling operation, the fan(s) operate on “High” speed.


<u>Outdoor Fan Control</u>
<table>
<tr><th></th><th>Air Quantity</th></tr>
<tr><td>A Zone</td><td>Maximum</td></tr>
<tr><td>B Zone</td><td>Per 20 seconds + 1 wave</td></tr>
<tr><td>C Zone</td><td>Maintain</td></tr>
<tr><td>D Zone</td><td>Per 20 seconds – 1 wave</td></tr>
<tr><td>E Zone</td><td>Minimum</td></tr>
</table>
</td><td><Outdoor Unit control></td></tr>
<tr><td>13</td><td>Check display</td><td>
Fault diagnosis is carried out by pressing the [CHECK] key on the remote controller. The check code is shown on the LCD display.


Refer to fault code section (6.4) of this manual for more details.
</td><td></td></tr>
<tr><td>14</td><td>Anti-restart timer</td><td>The Outdoor Unit delays restarting for 2 mins 30s to prevent short cycling of the compressor.</td><td></td></tr>
<tr><td>15</td><td>Group operation control</td><td>Up to 16 units can be controlled in same setting condition by one remote controller.
However, thermo-control function is independent.
Respective delayed start time for preventing simultaneous large starting currents is obtained by the setting of the unit No. switch on the indoor PCB. Refer to section 11.</td><td></td></tr>
</table>

8. OPERATION OF AIR CONDITIONER FROM OUTDOOR UNIT

It is possible to operate the air conditioner from the Outdoor Unit using switches provided on the outdoor PCB.

1. Set dip-switch (DSW01) bits 1 & 2 to ON position.

2. STOP OPERATION
(orange LED off → orange LED flashing)

   Apply Short a short across CN28 and CN29 until D08 LED illuminate, remove the short. The LED will then extinguish and Indoor Unit will start. After a couple of minutes the Outdoor Unit will start, LEDs D07 and D10 will illuminate.

   OPERATION STOP
(orange LED flashing → orange LED off)

   Short pins CN28 with CN29, LEDs D08 and D10 will extinguish. After Indoor Unit has stopped D07 will extinguish.

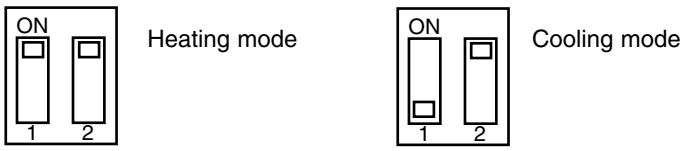
3. Reset DSW01 bits 1 & 2 to OFF position for normal operation.

9. EMERGENCY OPERATION

If the air conditioner develops a fault which stops it from operating normally, it is possible to operate the air conditions using the dip switches incorporated into the units. In this case, operation of the air conditioner is controlled by switching on and off the power supply. Details of how to change-over the units to operate in the emergency mode are shown below:

1. Switch off the power supply to the Outdoor Unit.
2. Change the switch SW04 of indoor PCB to ON in order to start emergency operation

3. On the Outdoor Unit PCB, change the switch settings on dip switch DSW01 as follows:



4. Switch on the power supply to the Outdoor Unit.

10. SYSTEM STATUS OUTPUT

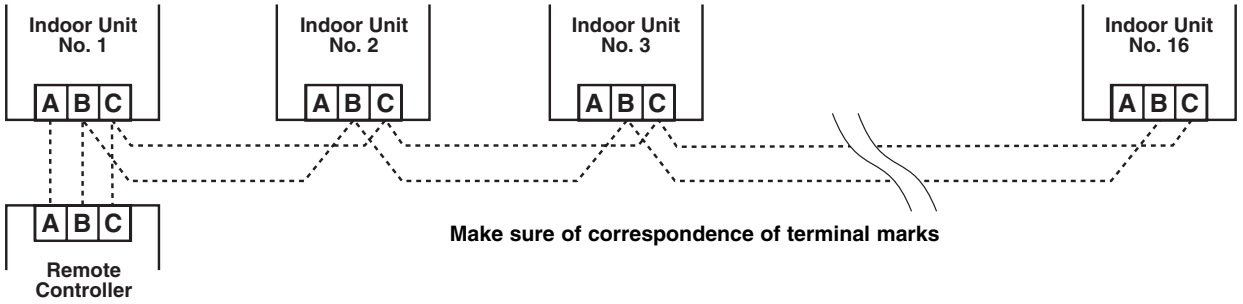
An auxiliary display output circuit (+12V) is available at CN13 on the Indoor PCB to display the operation for compressor, operation (Fan only) and abnormality.

An optional accessory RBC-IM1-PE is available to display the above signals.

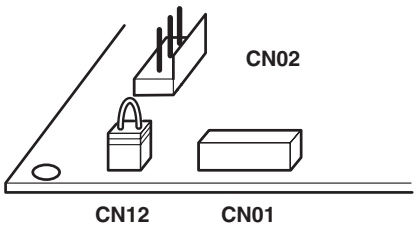
11. WIRING FOR GROUP OPERATION

Up to 16 units can be controlled as a group by one remote controller.

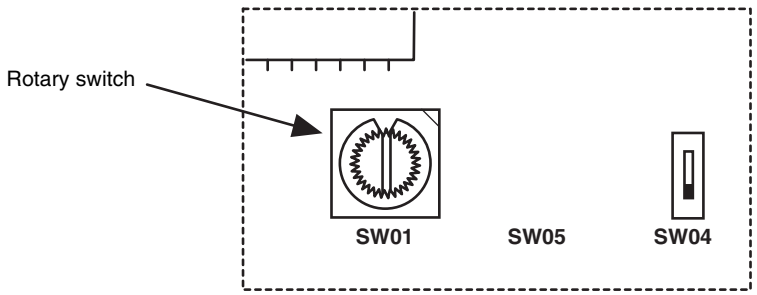
1. Align the phase sequence of the power supply to all Outdoor Units.
2. Connect the terminals A, B, C on both the remote controller and the Indoor Unit of No. 1 unit.
3. Connect terminals B, C on both Indoor Units of No. 1 and No. 2 unit. Then connect in the same way No. 2 and No. 3, No. 3 and No. 4 … up to No. 16 unit.


Indoor Unit No. 1
Indoor Unit No. 2
Indoor Unit No. 3
Indoor Unit No. 16
A B C
Remote Controller
Make sure of correspondence of terminal marks

4. Remove the CN12-connector on the indoor PCB of No. 2 unit and up to No. 16 unit to prevent malfunction.

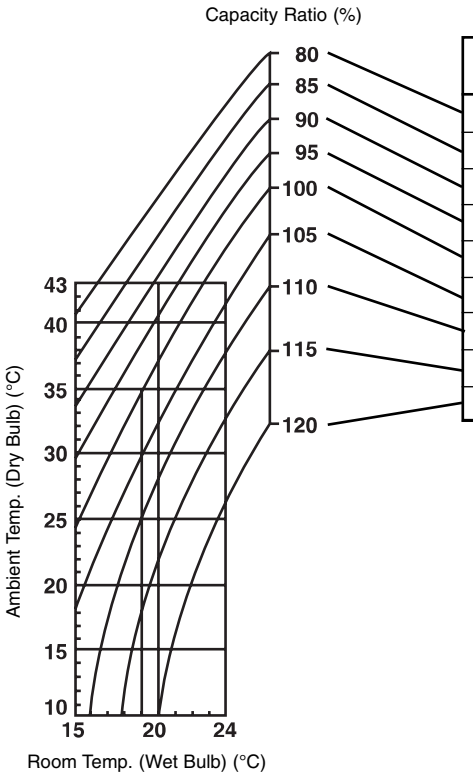


5. Set each unit No. rotary switch on the indoor PCB. The unit connected to the remote controller should be set as No. 1 unit. Then set the next unit as No. 2 up to No. 16 so that the start time of each unit is respectively delayed to prevent large simultaneous starting currents.



12. PERFORMANCE CHARACTERISTICS

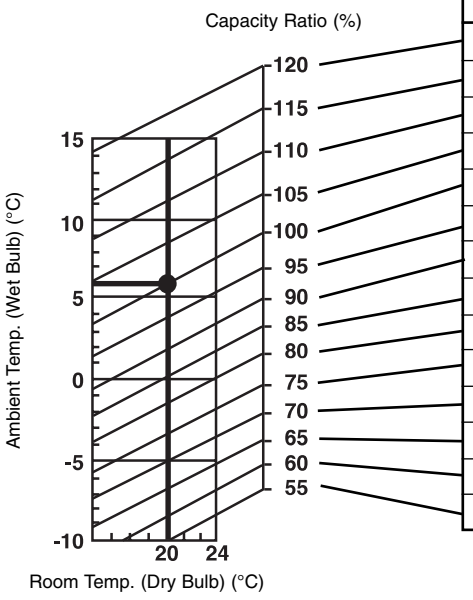
12.1 Cooling capacity



(kW)

RAV-134AH-PE	RAV-164AH-PE	RAV-264AH-PE RAV-264AH8-PE	RAV-364AH8-PE RAV-364AH8-1-PE	RAV-464AH8-PE
2.88	3.60	5.68	8.00	10.00
3.06	3.82	6.04	8.50	10.63
3.24	4.05	6.39	9.00	11.25
3.42	4.28	6.75	9.50	11.88
3.60	4.50	7.10	10.00	12.50
3.78	4.73	7.46	10.50	13.13
3.96	4.95	7.81	11.00	13.75
4.14	5.18	8.17	11.50	14.38
4.32	5.40	8.52	12.00	15.00

12.2 Heating capacity



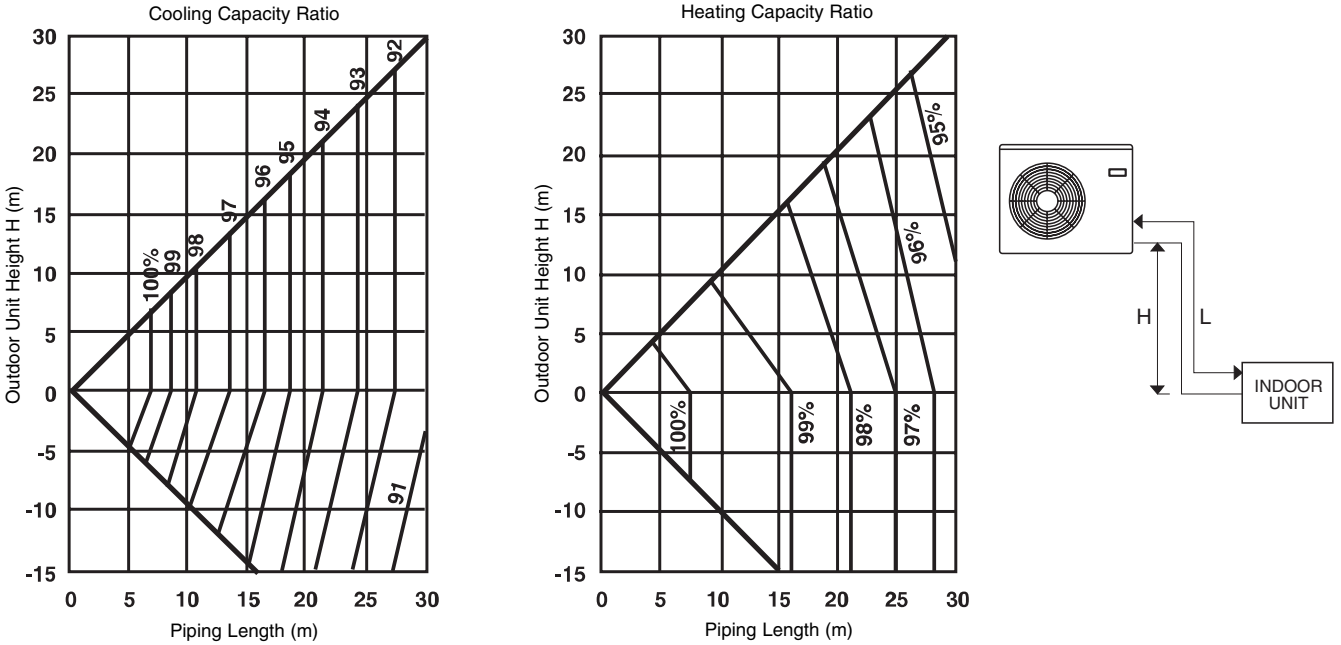
(kW)

RAV-134AH-PE	RAV-164AH-PE	RAV-264AH-PE RAV-264AH8-PE	RAV-364AH8-PE RAV-364AH8-1-PE	RAV-464AH8-PE
5.04	6.00	9.48	12.96	16.56
4.83	5.75	9.09	12.42	15.87
4.62	5.50	8.69	11.88	15.18
4.41	5.25	8.30	11.34	14.49
4.20	5.00	7.90	10.80	13.80
3.99	4.75	7.51	10.26	13.11
3.78	4.50	7.11	9.72	12.42
3.57	4.25	6.72	9.18	11.73
3.36	4.00	6.32	8.64	11.03
3.15	3.75	5.93	8.10	10.35
2.94	3.50	5.53	7.56	9.66
2.73	3.25	5.14	7.02	8.97
2.52	3.00	4.74	6.48	8.28
2.31	2.75	4.35	5.94	7.59

12. PERFORMANCE CHARACTERISTICS

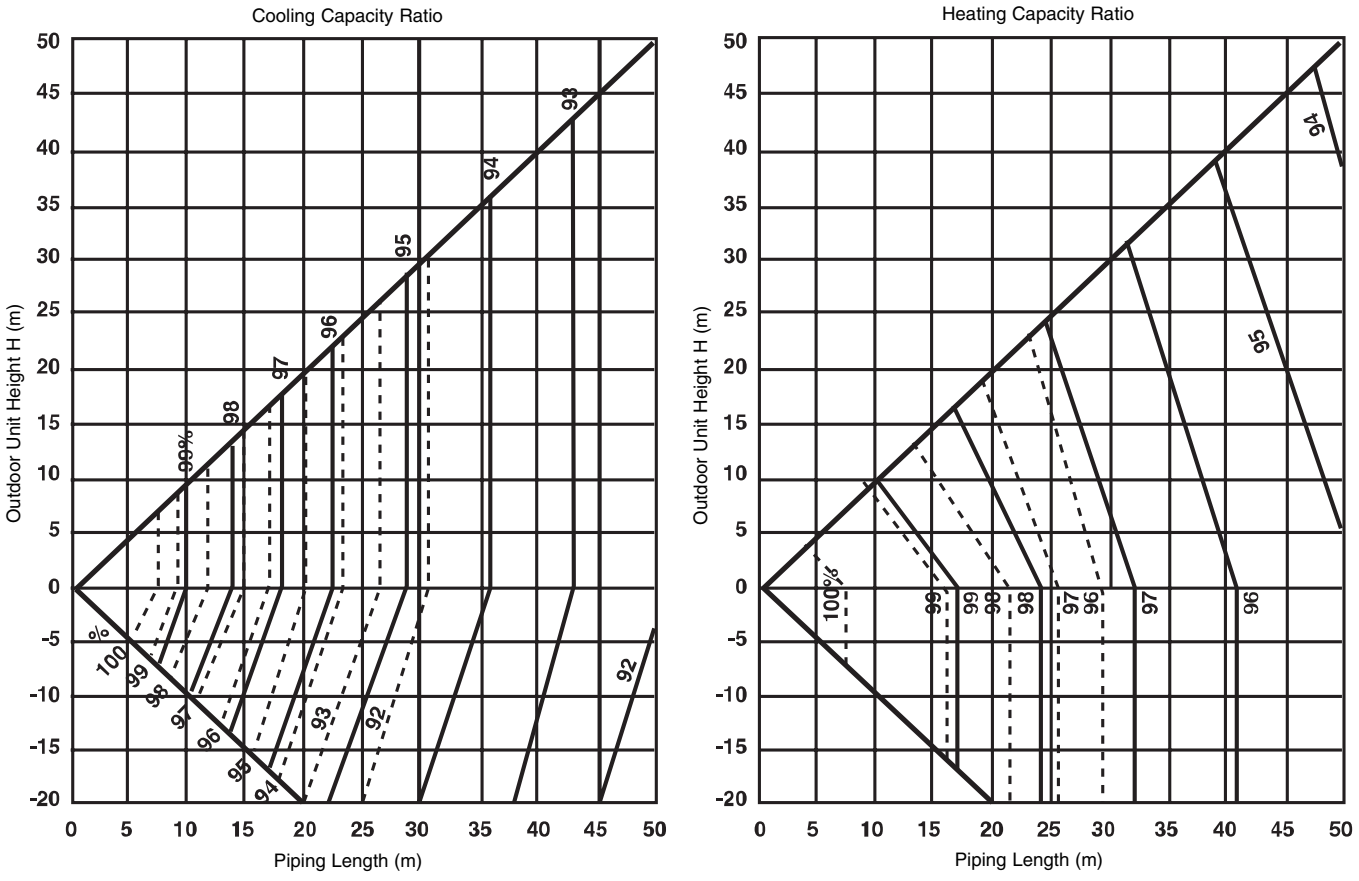
12.3 Capacity Correction Factors

RAV-134AH-PE
RAV-164AH-PE
RAV-264AH-PE
RAV-264AH8-PE



12.4 Capacity Correction Factors

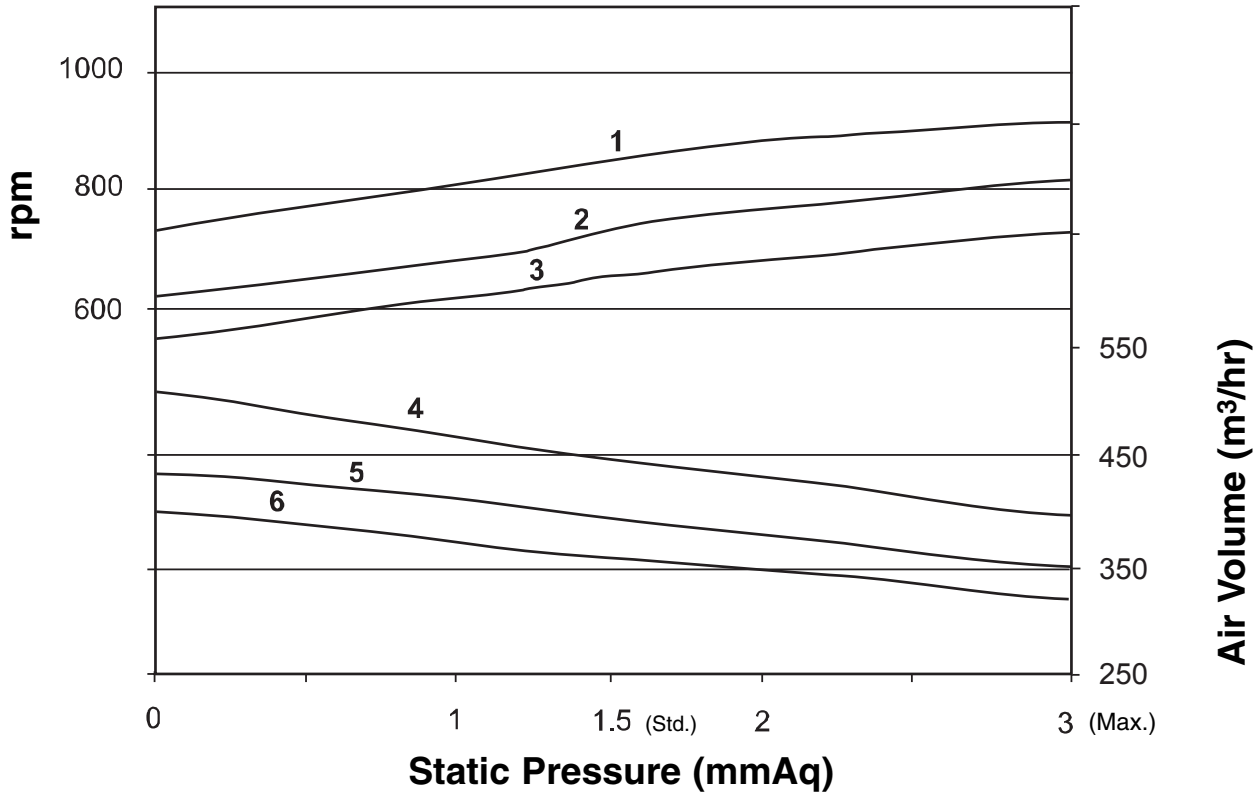
RAV-364AH8-PE **RAV-464AH8-PE**
RAV-364AH8-1-PE



The broken line shows in case the piping length is 30m or less

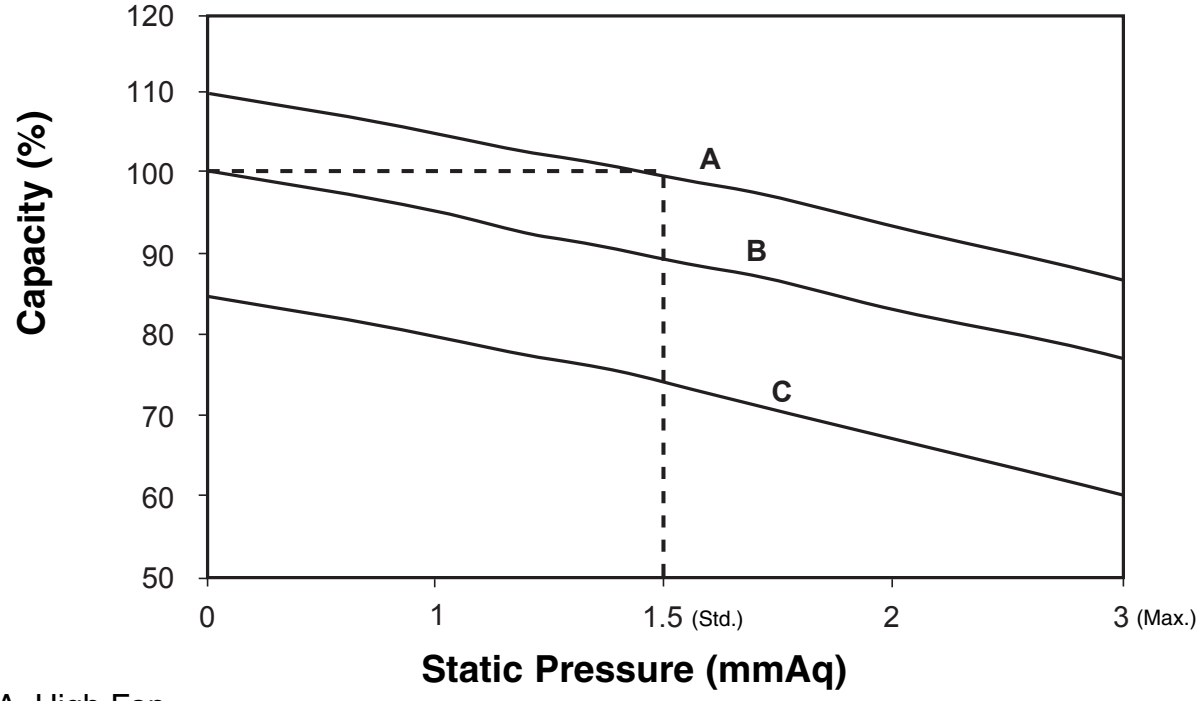
12. PERFORMANCE CHARACTERISTICS

12.5 Air Flow Characteristics (RAV-104SBH-PE)



1 rpm, High Fan
2 rpm, Medium Fan
3 rpm, Low Fan
4 Air Volume, High Fan
5 Air Volume, Medium Fan
6 Air Volume, Low Fan

12.6 Cooling/Heating Capacity Ratio (RAV-104SBH-PE)



A High Fan
B Medium Fan
C Low Fan

12.7 Piping Length/Additional Refrigerant Volume

- The amount of refrigerant put into the Outdoor Unit at the factory is sufficient to fill up to 20m of refrigerant pipework.
- If the length of the refrigerant pipework is 20m or less, addition of refrigerant at the installation site is unnecessary.
- If the length of the pipework exceeds 20m, extra refrigerant must be added. Refer to the table below for details of the extra amounts.
- Overcharge or undercharge of refrigerant in the Outdoor Unit will cause malfunction of the compressor.

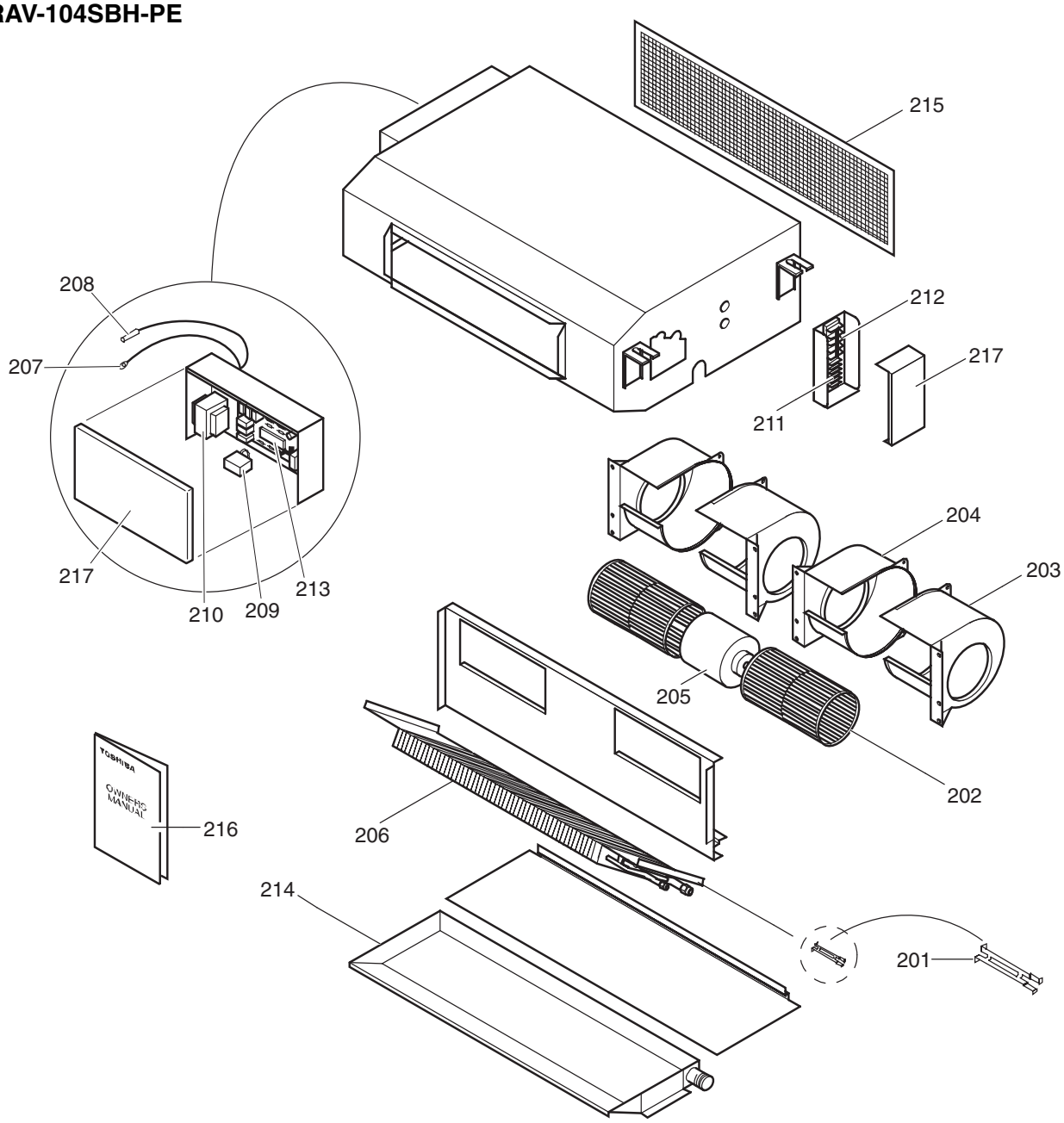
The prescribed amount of the replenishment of the refrigerant is shown in the table below:

MODEL (RAV-)	Additional amount of refrigerant to add at installation site (kg)±50g							Recharge amount if unit is reclaimed (kg)±50g							
	Less than 20m	Less than 25m	Less than 30m	Less than 35m	Less than 40m	Less than 45m	Less than 50m	Less than 5m	Less than 20m	Less than 25m	Less than 30m	Less than 35m	Less than 40m	Less than 45m	Less than 50m
134AH-PE	Filled at Factory	0.18	0.35	—	—	—	—	0.79	1.05	1.23	1.4	—	—	—	—
164AH-PE		0.18	0.35	—	—	—	—	0.94	1.2	1.38	1.55	—	—	—	—
264AH/AH8-PE		0.18	0.35	—	—	—	—	1.64	1.9	2.08	2.25	—	—	—	—
364AH8-PE		0.18	0.35	0.53	0.7	0.88	1.05	2.44	2.7	2.88	3.05	3.23	3.4	3.58	3.75
364AH8-1-PE		0.18	0.35	0.53	0.7	0.88	1.05	2.34	2.6	2.78	2.95	3.13	3.3	3.48	3.65
464AH8-PE		0.25	0.5	0.75	1.0	1.25	1.5	3.13	3.5	3.75	4.0	4.25	4.5	4.75	5.0

ADD ONLY R407C REFRIGERANT TO THESE UNITS

13. EXPLODED VIEWS AND PARTS LISTS

13.1 Indoor Unit
RAV-104SBH-PE



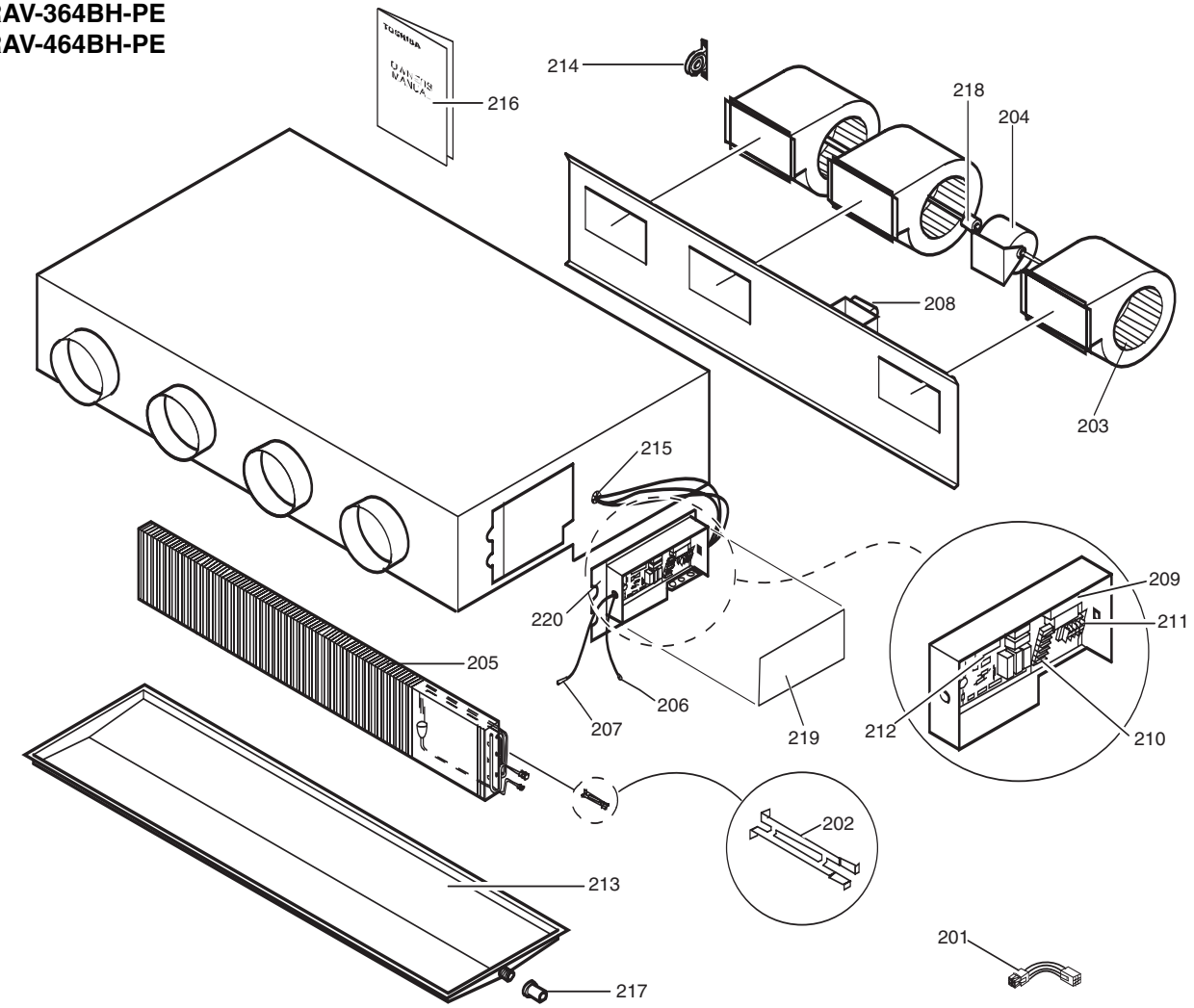
Ref. No.	Part No.	Description	104SBH
201	43107215	Sensor Holder	1
202	43A20003	Fan – Multi Blade	2
203	43A22005	Fan Case	2
204	43A22006	Fan Case	2
205	43A21020	Fan Motor	1
206	43A44059	Refrigeration Assembly	1
207	43A50005	TA Sensor – Room Temp	1
208	43A50004	TC Sensor – Heat Exchanger	1

Ref. No.	Part No.	Description	104SBH
209	43155100	MF Capacitor	1
210	43A58004	Transformer	1
211	43A60010	Terminal – ABCXY	1
212	43A60001	Terminal Block ⏚123	1
213	43A69010	PC Board	1
214	43A72009	Drain Pan	1
215	43A80009	Filter	1
216	43A88011	Owner's Manual	1
217	43A62010	E-Box Cover Set	1

13. EXPLODED VIEWS AND PARTS LISTS

13.2 Indoor Unit
RAV-164BH-PE
RAV-264BH-PE
RAV-364BH-PE
RAV-464BH-PE

For details of filter kit refer to Construction View (Page 29)



Ref No.	Part No.	Description	164BH	264BH	364BH	464BH
201	43160394	Connector-9P	1	1	1	1
202	43107215	Sensor Holder	1	1	1	1
203	43120149	Fan-Multi Blade	1	2	2	3
204	43A21009	Fan Motor SMF-230-60-4A	1			
204	43121516	Fan Motor STF-200-100-4B		1		
204	43121528	Fan Motor STF-200-120-4B			1	
204	43121535	Fan Motor STF-200-140-4F				1
205	43A44031	Refrigeration Asm	1			
205	43A44032	Refrigeration Asm		1		
205	43A44039	Refrigeration Asm			1	
205	43A44040	Refrigeration Asm				1
206	43A50003	Sensor-Room Temp	1	1	1	1
207	43A50004	Sensor-H/Exchanger	1	1	1	1
208	43155080	MF Capacitor 4μF 400V	1			
208	43121528	MF Capacitor 8μF 400V			*	
208	43155096	MF Capacitor 5μF 400V		1	*	

Ref No.	Part No.	Description	164BH	264BH	364BH	464BH
208	43155097	MF Capacitor 10μF 400V				1
209	43A58004	Transformer – AI	1	1	1	1
210	43A60010	Terminal Block – 'ABCXY'	1	1	1	1
211	43A60001	Terminal Block – '123'	1	1	1	1
212	43A69010	PC Board – AI	1	1	1	1
213	43A72004	Drain Pan Assembly	1			
213	43A72005	Drain Pan Assembly		1		
213	43191310	Drain Pan Assembly			1	1
214	43125135	Bearing				1
215	43A60009	Bushing	1	1	1	1
216	43A88011	Owners Manual	1	1	1	1
217	43A70002	Drain Socket	1	1	1	1
218	43125137	Coupling				1
219	43A62005	E-Box Cover	1	1	1	1
220	43A00010	Side Plate Right	1	1	1	1

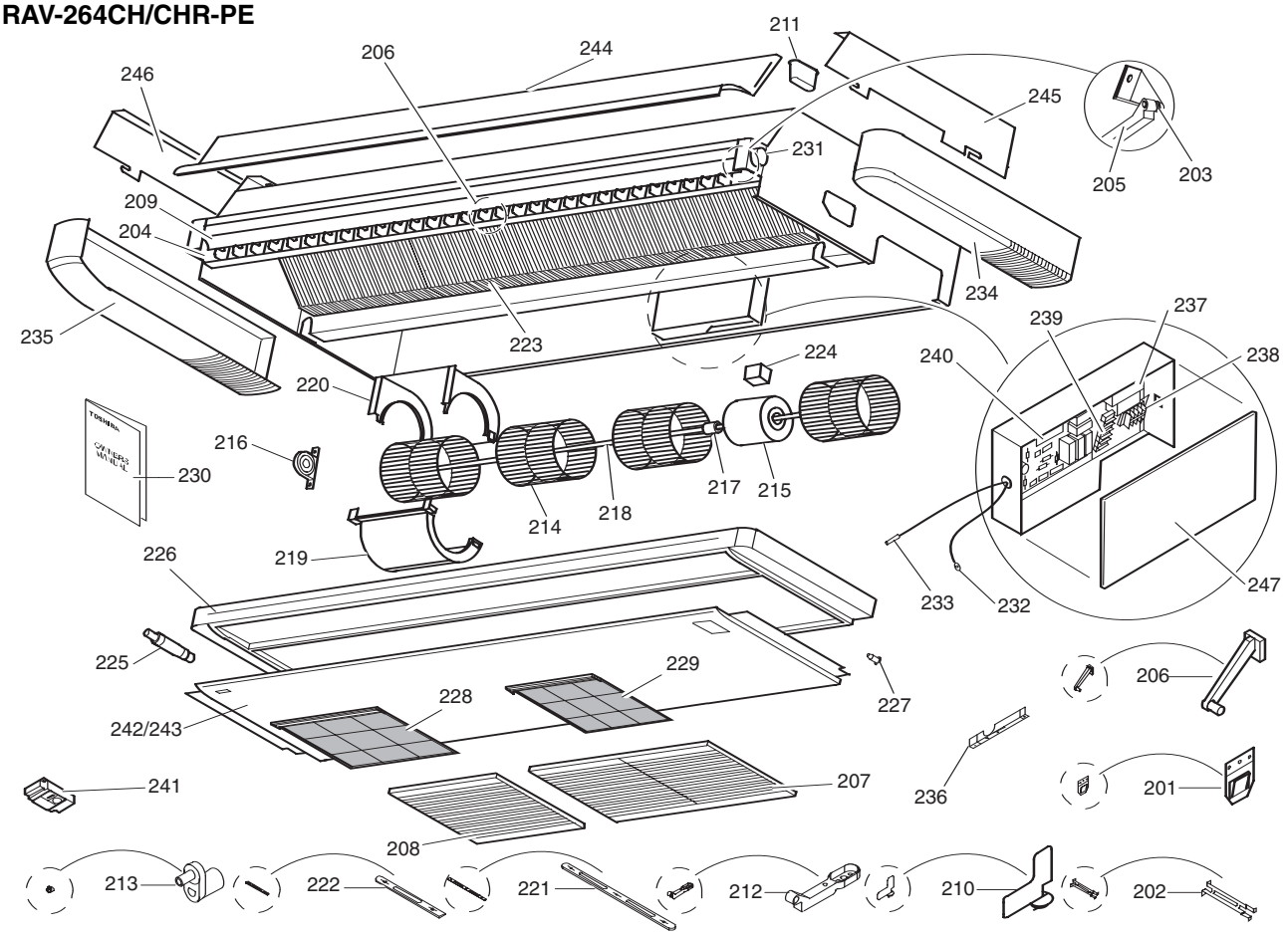
* *RAV-364BH-PE Capacitor change. Use 5μf Capacitor (43155096) with SANSO fan motor. For SISME fan motor use 8μf Capacitor (43121528)*

13. EXPLODED VIEWS AND PARTS LISTS

13.3 Indoor Unit

RAV-134CH/CHR-PE **RAV-364CH/CHR-PE**
RAV-164CH/CHR-PE **RAV-464CH/CHR-PE**
RAV-264CH/CHR-PE

For Optional Rear Painted Panel refer to Construction View (Page 30)



Ref No.	Part No.	Description	134CH	134CHR	164CH	164CHR	264CH	264CHR	364CH	364CHR	464CH	464CHR
201	43107214	Hinge	6	6	6	6	6	6	6	6	6	6
202	43107215	Sensor Holder	1	1	1	1	1	1	1	1	1	1
203	43107216	Spring	1	1	1	1	1	1	1	1	1	1
204	43107223	Grille Shaft – Left	1	1	1	1	1	1	1	1	1	1
205	43107222	Grille Shaft – Right	1	1	1	1	1	1	1	1	1	1
206	43107224	Grille Support – Centre							1	1	1	1
207	43109321	Inlet Grille – Large					1	1	2	2	3	3
208	43109322	Inlet Grille – Small	3	3	3	3	2	2	1	1		
209	43109324	Horizontal Grille	1	1	1	1						
209	43109320	Horizontal Grille					1	1				
209	43109327	Horizontal Grille							1	1		
209	43109328	Horizontal Grille									1	1
210	43109329	Vertical Grille	15	15	15	15	19	19	24	24	26	26
211	43119373	Bolt Cover	4	4	4	4	4	4	4	4	4	4
212	43119393	Shaft Holder	2	2	2	2	2	2	3	3	3	3
213	43119394	Lever	1	1	1	1	1	1	1	1	1	1
214	43120172	Fan – Multi Blade	2	2	3	3	4	4				
214	43120174	Fan – Multi Blade							3	3	4	4
215	43A21013	Fan Motor	1	1								
215	43A21005	Fan Motor			1	1	1	1				
215	43A21006	Fan Motor							1	1		
215	43A21007	Fan Motor									1	1
216	43125131	Bearing			1	1	1	1	1	1	1	1
217	43125142	Coupling			1	1	1	1	1	1	1	1
218	43125143	Shaft SS			1	1						
218	43125141	Shaft SS					1	1				
218	43125145	Shaft SS							1	1		
218	43125144	Shaft SS									1	1
219	43126127	Fan Case – Lower	2	2	3	3	4	4				
219	43126129	Fan Case – Lower							3	3	4	4
220	43126128	Fan Case – Upper	2	2	3	3	4	4				
220	43126130	Fan Case – Upper							3	3	4	4
221	43A39004	Connect Bar	5	5	5	5	5	5	8	8	6	6
222	43A39005	Connect Bar					2	2			4	4
223	43A44037	Refrigeration Assembly	1	1								
223	43A44038	Refrigeration Assembly			1	1						
223	43A44054	Refrigeration Assembly					1	1				
223	43A44030	Refrigeration Assembly							1	1		
223	43A44029	Refrigeration Assembly									1	1
224	43155101	MF Capacitor	1	1								

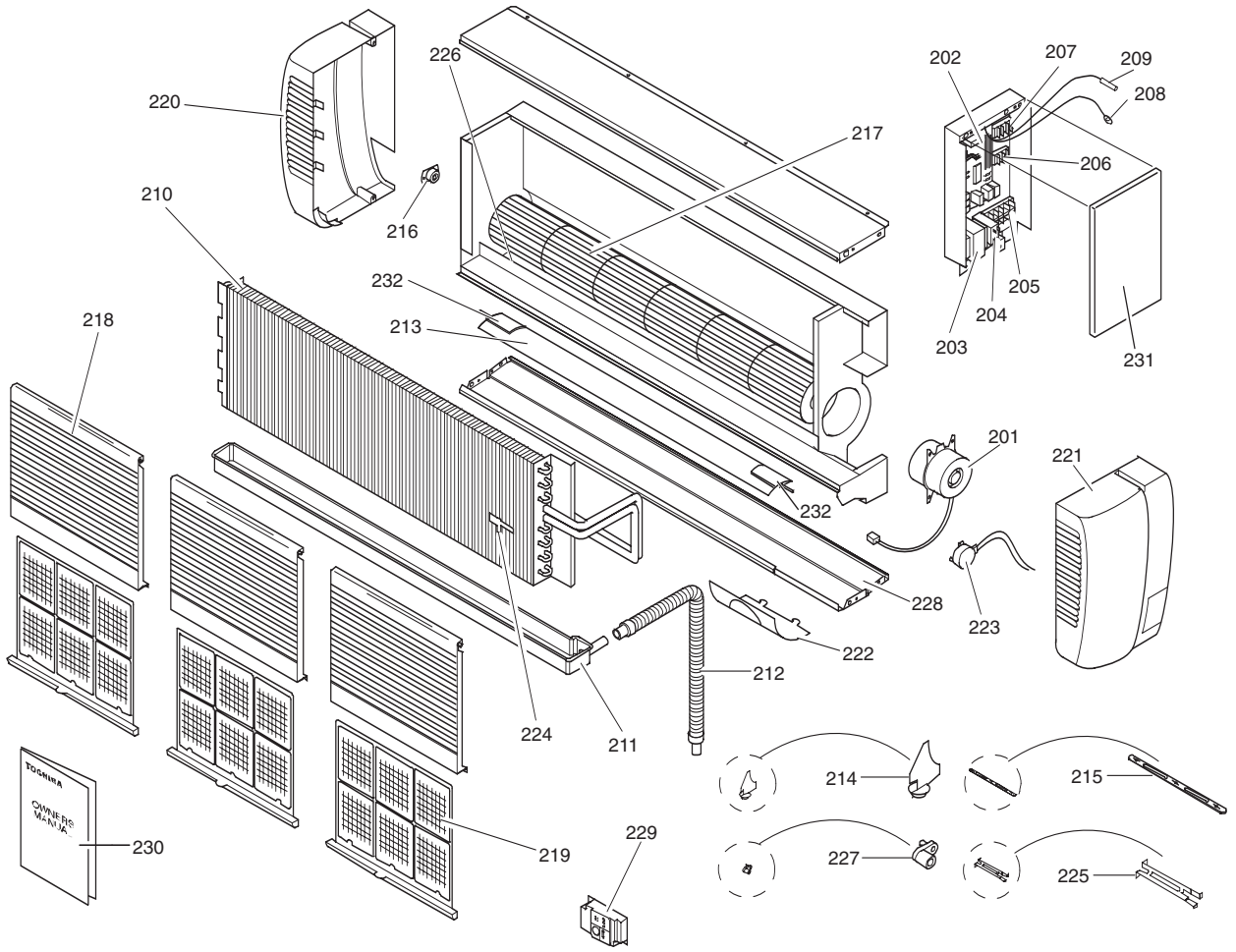
Ref No.	Part No.	Description	134CH	134CHR	164CH	164CHR	264CH	264CHR	364CH	364CHR	464CH	464CHR
224	43155138	MF Capacitor			1	1	1	1				
224	43A55001	MF Capacitor							1	1		
224	43155080	MF Capacitor									1	1
225	43A70007	Hose Assembly	1	1	1	1	1	1	1	1	1	1
226	43172121	Drain Pan Assembly	1	1	1	1						
226	43172119	Drain Pan Assembly					1	1				
226	43172122	Drain Pan Assembly							1	1		
226	43172123	Drain Pan Assembly									1	1
227	43179107	Plug	1	1	1	1	1	1	1	1	1	1
228	43180284	Air Filter – Large	3	3	3	3	2	2	1	1		
229	43180283	Air Filter – Small					2	2	4	4	6	6
230	43A88011	Owners Manual	1	1	1	1	1	1	1	1	1	1
231	43A21008	Geared Motor	1	1	1	1	1	1	1	1	1	1
232	43A50005	Sensor – Room Temp.(TA)	1	1	1	1	1	1	1	1	1	1
233	43A50004	Sensor – H/Exchanger (TC)	1	1	1	1	1	1	1	1	1	1
234	43102624	Side Panel Right Assmb.	1	1	1	1	1	1	1	1	1	1
235	43102625	Side Panel Left Assmb.	1	1	1	1	1	1	1	1	1	1
236	43117812	Plate H	1	1	1	1	1	1	1	1	1	1
237	43A58004	Transformer – AI	1	1	1	1	1	1	1	1	1	1
238	43A60001	Terminal Block 123	1	1	1	1	1	1	1	1	1	1
239	43A60010	Terminal Block ABC XY	1	1	1	1	1	1	1	1	1	1
240	43A69010	PC Board (AI)	1	1	1	1	1	1	1	1	1	1
241	43A69012	Infra-Red Receiver		1		1		1		1		1
242	43A91001	Under Panel	1		1							
242	43A91002	Under Panel					1					
242	43A91003	Under Panel							1			
242	43A91004	Under Panel									1	
243	43A91040	Under Panel (Remote)		1		1						
243	43A91041	Under Panel (Remote)						1				
243	43A91042	Under Panel (Remote)								1		
243	43A91043	Under Panel (Remote)										1
244	43A91005	Upper Panel Asm	1	1	1	1						
244	43A91006	Upper Panel Asm					1	1				
244	43A91007	Upper Panel Asm							1	1		
244	43A91008	Upper Panel Asm									1	1
245	43A91009	Hanger (Right)	1	1	1	1	1	1				
245	43A91011	Hanger (Right)							1	1	1	1
246	43A91010	Hanger (Left)	1	1	1	1	1	1				
246	43A91012	Hanger (Left)							1	1	1	1
247	43A62005	E-Box Cover	1	1	1	1	1	1	1	1	1	1

13. EXPLODED VIEWS AND PARTS LISTS

13.4 Indoor Unit

RAV134KH/KHR-PE
RAV164KH/KHR-PE
RAV264KH/KHR-PE

For Installation Panel refer to Construction View (Page 31)

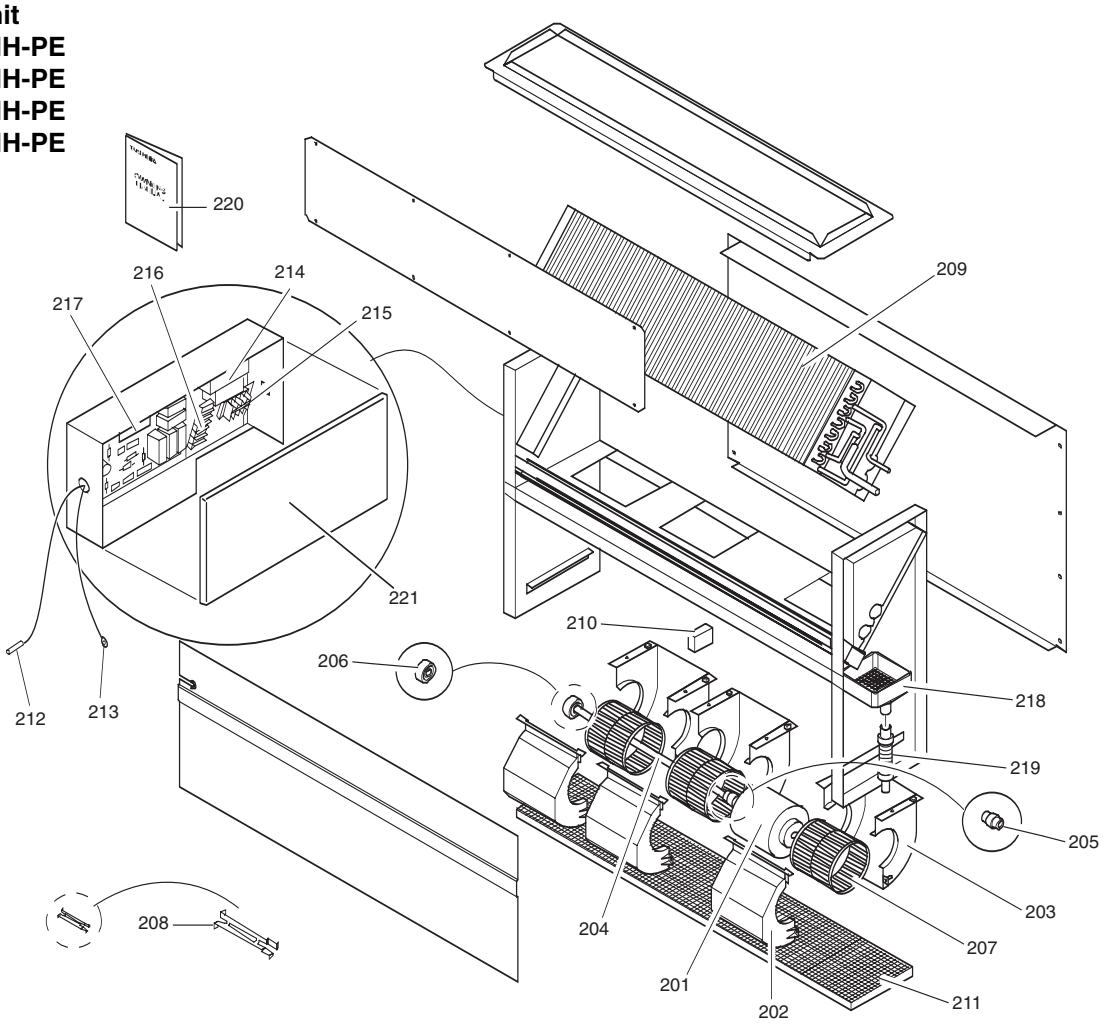


Ref No.	Part No.	Description	134KH	134KHR	164KH	164KHR	264KH	264KHR
201	43A21016	Fan – Motor	1	1	1	1		
201	43A21017	Fan – Motor					1	1
202	43A69010	PC Board – (AI)	1	1	1	1	1	1
203	43A58004	Transformer – (AI)	1	1	1	1	1	1
204	43155100	Capacitor	1	1				
204	43155101	Capacitor			1	1		
204	43A55002	Capacitor					1	1
205	43A60001	Terminal 123	1	1	1	1	1	1
206	43A60011	Terminal XY	1	1	1	1	1	1
207	43A60002	Terminal ABC	1	1	1	1	1	1
208	43A50008	Sensor – Room Temperature TA	1	1	1	1	1	1
209	43A50009	Sensor – Heat Exchanger TC	1	1	1	1	1	1
210	43A44049	Refrigeration ASM	1	1				
210	43A44050	Refrigeration ASM			1	1		
210	43A44051	Refrigeration ASM					1	1
211	43172112	Drain Pan	1	1	1	1		
211	43172114	Drain Pan					1	1
212	43170182	Drain Hose	1	1	1	1	1	1
213	43A09005	Louvre (includes shaft)	1	1	1	1		
213	43A09006	Louvre (includes shaft)					1	1
214	43A09003	V-Grille	15	15	15	15	21	21

Ref No.	Part No.	Description	134KH	134KHR	164KH	164KHR	264KH	264KHR
215	43A39004	Connection Bar	5	5	5	5	7	7
216	43022189	Bearing	1	1				
217	43120135	Cross Flow Fan	1	1	1	1		
217	43120136	Cross Flow Fan					1	1
218	43A09004	Inlet Grille	3	3	3	3	4	4
219	43A80008	Air Filter	3	3	3	3	4	4
220	43A00001	Side Cabinet – Left	1	1	1	1	1	1
221	43A00002	Side Cabinet – Right	1	1	1	1	1	1
222	43A00003	Control Panel	1		1		1	
222	43A01005	Control Panel - Remote		1		1		1
223	43121533	Geared Motor	1	1	1	1	1	1
224	43A19002	Sensor Holder, TA	1	1	1	1	1	1
225	43107215	Sensor Holder, TC	1	1	1	1	1	1
226	43122028	Fan Nose	1	1	1	1		
226	43122029	Fan Nose					1	1
227	43119394	Lever	1	1	1	1	1	1
228	43A91050	D Cabi – Assembly	1	1	1	1		
228	43A91051	D Cabi – Assembly					1	1
229	43A69012	Infra Red Receiver – (AI)		1		1		1
230	43A88011	Owner's Manual	1	1	1	1	1	1
231	43A62006	E-Box Cover	1	1	1	1	1	1
232	43A39009	Louvre Shaft Set	1	1	1	1	1	1

13. EXPLODED VIEWS AND PARTS LISTS

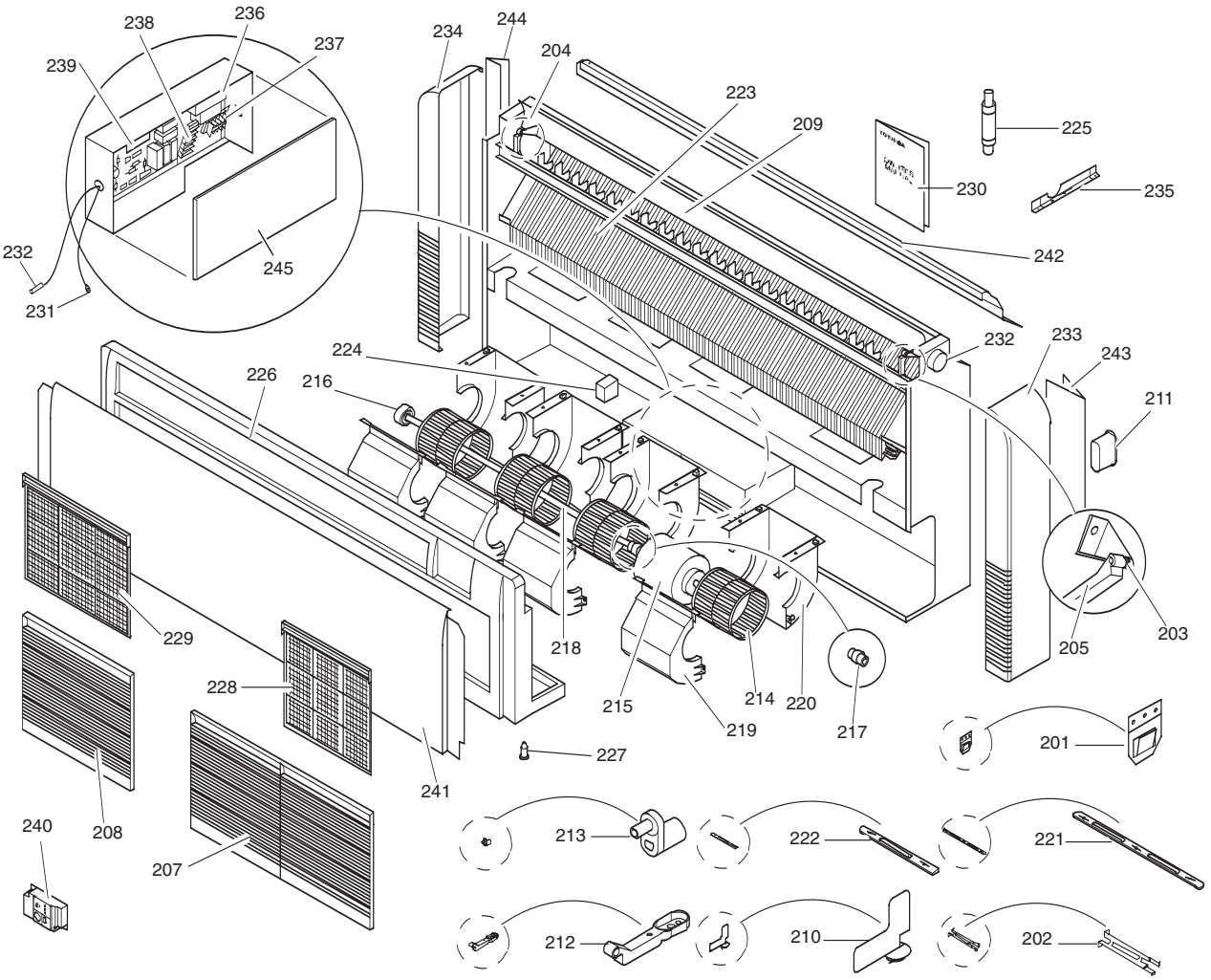
13.5 Indoor Unit
RAV-104NH-PE
RAV-134NH-PE
RAV-164NH-PE
RAV-264NH-PE



Ref No.	Part No.	Description	104NH	134NH	164NH	264NH
201	43A21013	Fan Motor	1	1		
201	43A21004	Fan Motor			1	
201	43A21020	Fan Motor				1
202	43126127	Fan Case Lower	2	2	3	
202	43126129	Fan Case Lower				2
203	43126128	Fan Case Upper	2	2	3	
203	43126130	Fan Case Upper				2
204	43125143	SS Shaft			1	
205	43125142	Coupling			1	
206	43125131	Bearing			1	
207	43120172	Multi Blade Fan	2	2	3	
207	43120174	Multi Blade Fan				2
208	43107215	Sensor Holder	1	1	1	1
209	43A44045	Refrigeration Assembly	1			
209	43A44046	Refrigeration Assembly		1		
209	43A44047	Refrigeration Assembly			1	
209	43A44048	Refrigeration Assembly				1
210	43155101	MF Capacitor	1			
210	43A55002	MF Capacitor		1		
210	43155138	MF Capacitor			1	
210	43155101	MF Capacitor				1
211	43A80006	Filter	1			
211	43A80007	Filter		1	1	1
212	43A50004	Sensor – Heat Exchanger TC	1	1	1	1
213	43A50003	Sensor – Room Temp TA	1	1	1	1
214	43A58004	Transformer – (AI)	1	1	1	1
215	43A60001	Terminal Block 123	1	1	1	1
216	43A60010	Terminal Block ABCXY	1	1	1	1
217	43A69010	PC Board – (AI)	1	1	1	1
218	43A70004	Drain Catch Assembly	1	1	1	1
219	43170197	Drain Hose	1	1	1	1
220	43A88011	Owner's Manual	1	1	1	1
221	43A62007	E-Box Cover	1	1	1	1

13. EXPLODED VIEWS AND PARTS LISTS

13.6 Indoor Unit
RAV-164SH/SHR-PE
RAV-264SH/SHR-PE

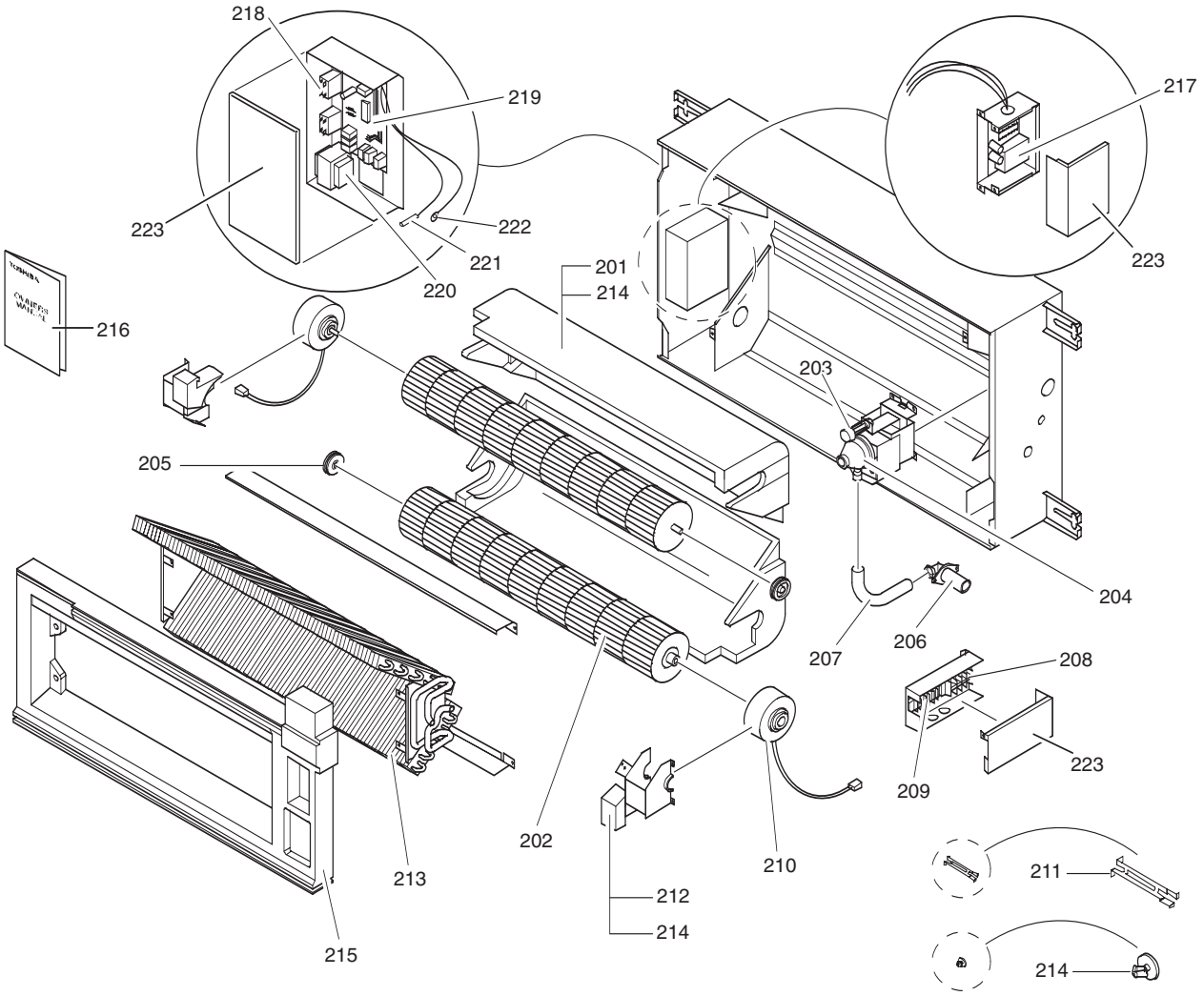


Ref No.	Part No.	Description	164SH	164SHR	264SH	264SHR
201	43107214	Hinge	6	6	6	6
202	43107215	Sensor Holder	1	1	1	1
203	43107216	Spring	1	1	1	1
204	43107223	Grille Shaft Left	1	1	1	1
205	43107222	Grille Shaft Right	1	1	1	1
207	43109321	Inlet Grille Large			1	1
208	43109322	Inlet Grille Small	3	3	2	2
209	43109324	Louvre	1	1		
209	43109320	Louvre			1	1
210	43109329	Vertical Grille	15	15	19	19
211	43119373	Bolt Cover	4	4	4	4
212	43119393	Shaft Holder	2	2	2	2
213	43119394	Lever	1	1	1	1
214	43120172	Fan, Multi Blade	3	3	4	4
215	43A21005	Fan Motor	1	1	1	1
216	43125131	Bearing	1	1	1	1
217	43125142	Coupling	1	1	1	1
218	43125143	Shaft SS	1	1		
218	43125141	Shaft SS			1	1
219	43126127	Fan Case Lower	3	3	4	4
220	43126128	Fan Case Upper	3	3	4	4
221	43A39004	Connect Bar	5	5	5	5
222	43A39005	Connect Bar			2	2
223	43A44052	Refrigeration Assembly	1	1		
223	43A44053	Refrigeration Assembly			1	1
224	43155101	MF Capacitor	1	1		
224	43155138	MF Capacitor			1	1

Ref No.	Part No.	Description	164SH	164SHR	264SH	264SHR
225	43A70007	Hose Assembly	1	1	1	1
226	43A72002	Drain Pan Assembly	1	1		
226	43A72003	Drain Pan Assembly			1	1
227	43179107	Plug	1	1	1	1
228	43180283	Air Filter Small	3	3	2	2
229	43180284	Air Filter Large			2	2
230	43A88011	Owner's Manual	1	1	1	1
231	43A50005	Sensor – room temperature	1	1	1	1
232	43A50004	Sensor – heat exchanger (TC)	1	1	1	1
233	43102624	Side Panel Assm – right	1	1	1	1
234	43102625	Side Panel Assm – left	1	1	1	1
235	43117812	Plate H	1	1	1	1
236	43A58004	Transformer – (AI)	1	1	1	1
237	43A60001	Terminal Block – 123	1	1	1	1
238	43A60010	Terminal Block – ABCXY	1	1	1	1
239	43A69010	PC Board – (AI)	1	1	1	1
240	43A69012	Infra-red Receiver – (AI)		1		1
241	43A91046	Underpanel	1			
241	43A91044	Underpanel – (remote)		1		
241	43A91047	Underpanel			1	
241	43A91045	Underpanel – (remote)				1
242	43A91052	Upper panel	1	1		
242	43A91053	Upper panel			1	1
243	43A91009	Hanger Right	1	1	1	1
244	43A91010	Hanger Left	1	1	1	1
245	43A62005	E-Box Cover	1	1	1	1

13. EXPLODED VIEWS AND PARTS LISTS

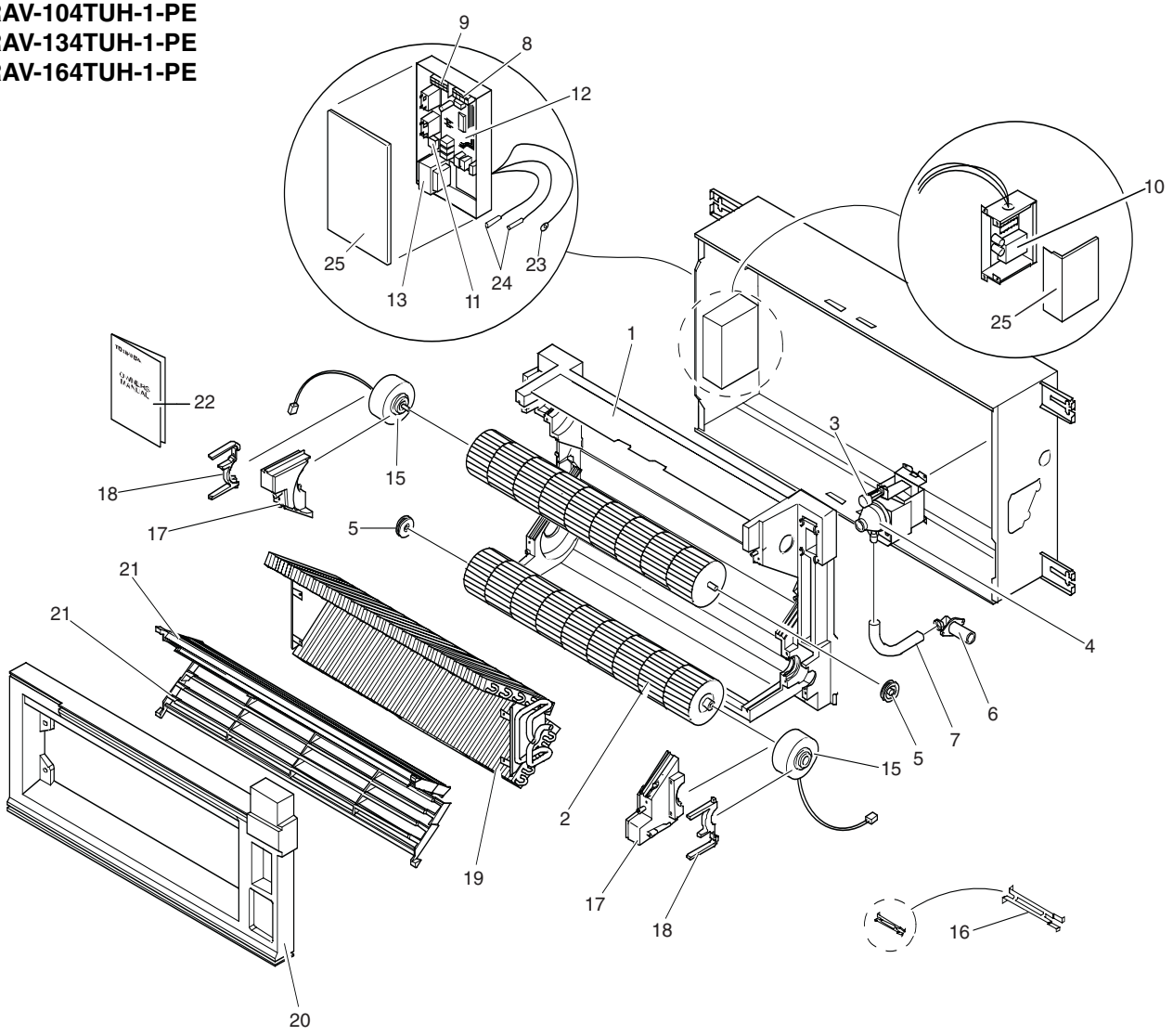
13.7 Indoor Unit
RAV-104TUH-PE
RAV-134TUH-PE
RAV-164TUH-PE



Ref No.	Part No.	Description	104TUH	134TUH	164TUH
201	43A22001	Casing Assembly	2	2	2
202	43020288	Fan	2	2	2
203	43151217	Float Switch	1	1	1
204	43A70003	Pump Assembly	1	1	1
205	43020253	Bearing	2	2	2
206	43071019	Drain Connection	1	1	1
207	43070164	Drain Hose	1	1	1
208	43A60010	Terminal ABC XY	1	1	1
209	43A60001	Terminal 123	1	1	1
210	43A21014	Fan Motor	2	2	2
211	43A50006	Sensor Holder	1	1	1
212	43A22002	Casing Outlet	2	2	2
213	43A44042	Heat Exchanger	1		
213	43A44043	Heat Exchanger		1	
213	43A44044	Heat Exchanger			1
214	43039240	Canoe Clip	2	2	2
215	43A72001	Drain Pan	1	1	1
216	43A88011	Owner's Manual	1	1	1
217	43A69008	Interface PC Board	1	1	1
218	37555721	Capacitor, Metal Film	2		
218	43155100	Capacitor, Metal Film		2	2
219	43A69010	PC Board - (AI)	1	1	1
220	43A58004	Transformer - (AI)	1	1	1
221	43A50004	Sensor - Heat Exchanger (TC)	1	1	1
222	43A50008	Sensor - Room Temperature (TA)	1	1	1
223	43A62008	E-Box Cover Set	1	1	1

13. EXPLODED VIEWS AND PARTS LISTS

13.8 Indoor Unit
RAV-104TUH-1-PE
RAV-134TUH-1-PE
RAV-164TUH-1-PE

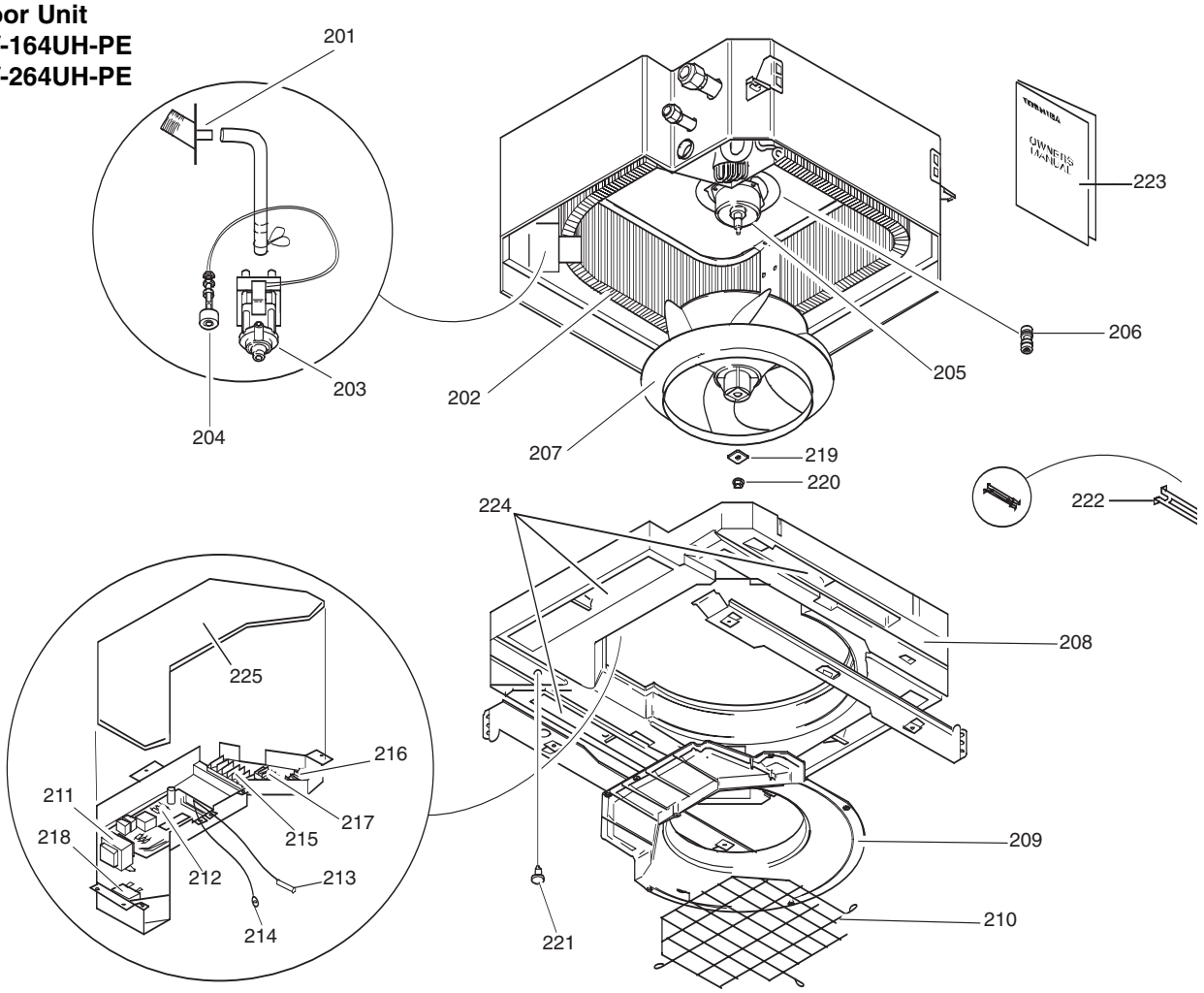


Ref No.	Part No.	Description	104TUH-1	134TUH-1	164TUH-1
1	43A22007	Blower Base Assembly	1	1	1
2	43020288	Fan-C-F	2	2	2
3	43A51002	Float Switch	1	1	1
4	43A70008	Pump Assembly	1	1	1
5	43020253	Bearing	2	2	2
6	43071019	Drain Connection	1	1	1
7	43A70009	Drain Hose	1	1	1
8	43A60010	Terminal ABC XY	1	1	1
9	43A60001	Terminal 1, 2, 3	1	1	1
10	43A69008	Interface PC Board	1	1	1
11	37555721	MF Capacitor	2		
11	43155100	MF Capacitor		2	2
12	43A69010	PC Board (AI)	1	1	1
13	43A58004	Transformer (AI)	1	1	1

Ref No.	Part No.	Description	104TUH-1	134TUH-1	164TUH-1
15	43A21014	Fan Motor (PAF-230-7-4)	2	2	2
16	43A50006	Sensor Holder	2	2	2
17	43A22008	Motor Band L	1	1	1
18	43A22009	Motor Band R	1	1	1
19	43A44060	Refrigeration Assembly	1		
19	43A44061	RefrigerationAssembly		1	
19	43A44062	Refrigeration Assembly			1
20	43A72010	Drain Pan	1	1	1
21	43A83001	Drain Guide Assembly	1	1	1
22	43A88011	Owner Manual	1	1	1
23	43A50008	Sensor – Room Temperature	1	1	1
24	43A50004	Sensor – Heat Exchanger	2	2	2
25	43A62009	E-Box Cover Set	1	1	1

13. EXPLODED VIEWS AND PARTS LISTS

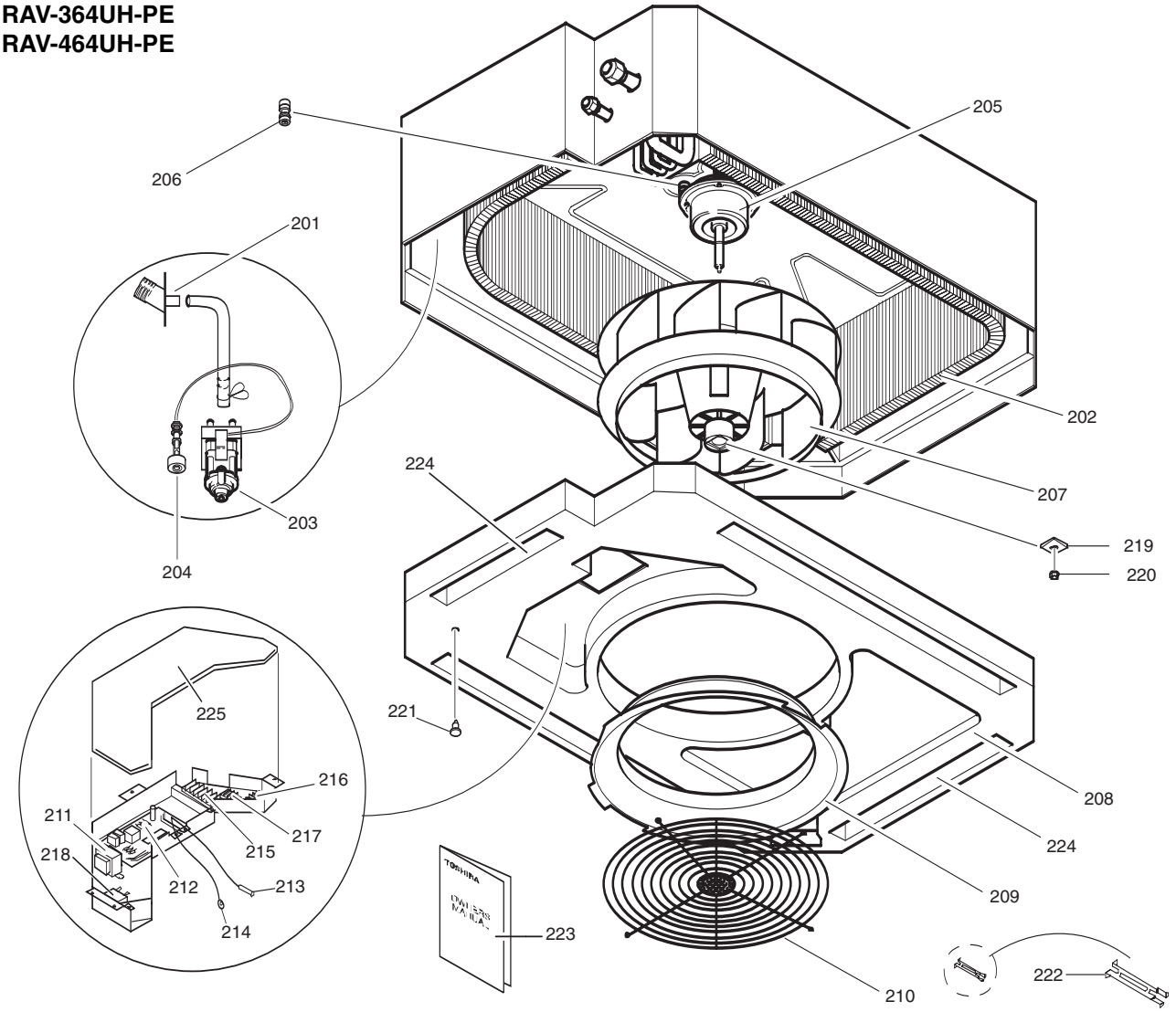
13.9 Indoor Unit
RAV-164UH-PE
RAV-264UH-PE



Ref No.	Part No.	Description	164UH	264UH
201	43A70005	Drain Hose Assembly	1	1
202	43A44033	Refrigeration Assembly	1	
202	43A44034	Refrigeration Assembly		1
203	43A70006	Drain Pump	1	1
204	43A51002	Float Switch	1	1
205	43A21018	Fan Motor	1	1
206	43A11004	Rubber Insulation	3	3
207	43A20001	Centrifugal Fan	1	1
208	43A72006	Drain Pan Assembly	1	1
209	43A22003	Bellmouth	1	1
210	43A19004	Fan Guard	1	1
211	43A58004	Transformer (AI)	1	1
212	43A69010	PC Board (AI)	1	1
213	43A50007	Sensor - Heat Exchanger (TC)	1	1
214	43A50005	Sensor - Room Temp. (TA)	1	1
215	43A60001	Terminal 123	1	1
216	43A60002	Terminal ABC	1	1
217	43A60011	Terminal X,Y	1	1
218	43155100	MF Capacitor	1	
218	43A55002	MF Capacitor		1
219	43097166	Washer	1	1
220	43A97002	Fan Washer	1	1
221	43A72008	Plug	1	1
222	43107215	Sensor Holder	1	1
223	43A88011	Owner's Manual	1	1
224	43A39007	Air Blocks	1	1
225	43A62004	E-Parts Covers	1	1

13. EXPLODED VIEWS AND PARTS LISTS

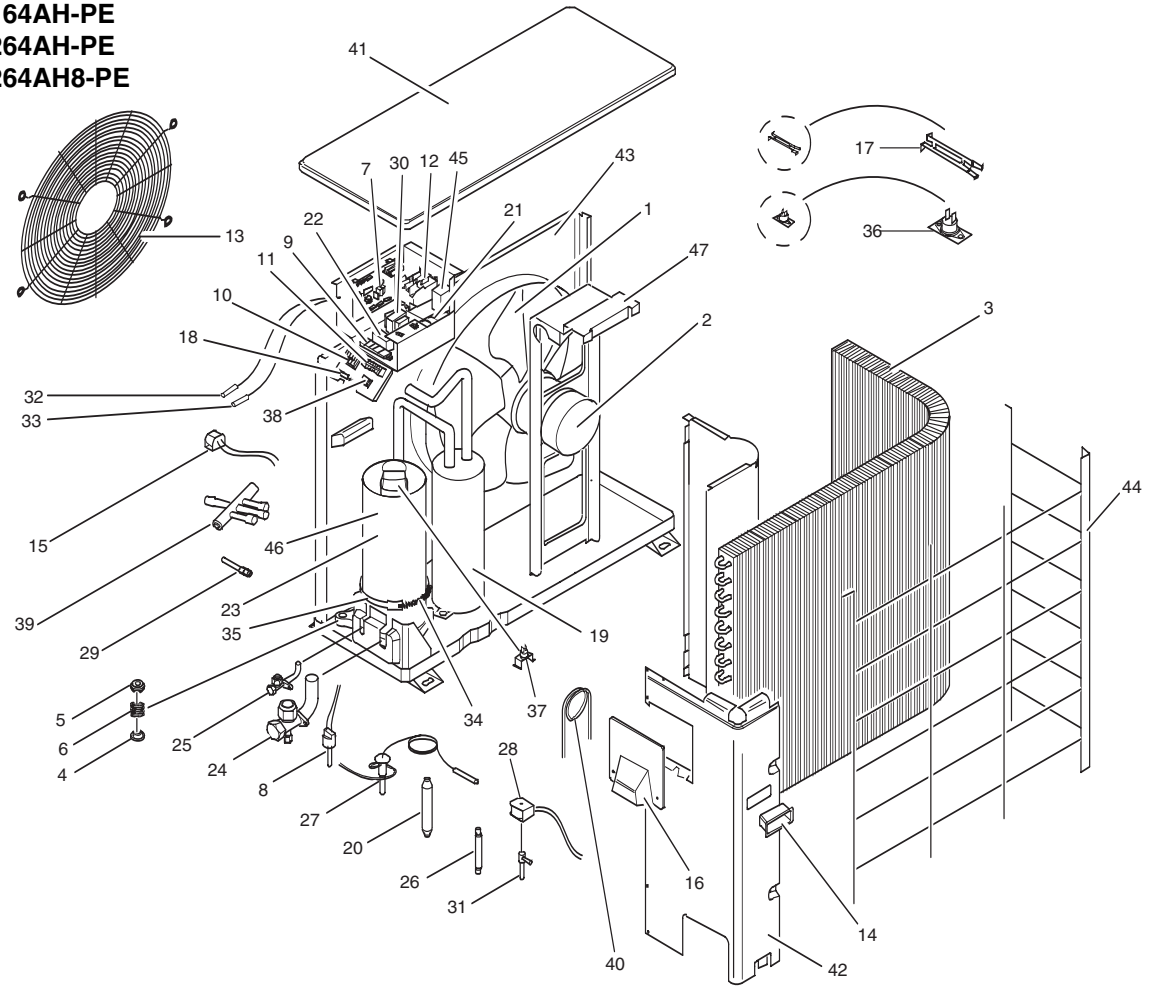
13.10 Indoor Unit
RAV-364UH-PE
RAV-464UH-PE



Ref No.	Part No.	Description	364UH	464UH
201	43A70005	Drain Hose Assembly	1	1
202	43A44035	Refrigeration Assembly	1	
202	43A44036	Refrigeration Assembly		1
203	43A70006	Drain Pump	1	1
204	43A51002	Float Switch	1	1
205	43A21019	Fan Motor	1	1
206	43A11005	Rubber Insulation	4	4
207	43A20002	Centrifugal Fan	1	1
208	43A72007	Drain Pan Assembly	1	1
209	43A22004	Bellmouth	1	1
210	43A19005	Fan Guard	1	1
211	43A58004	Transformer (AI)	1	1
212	43A69010	PC Board (AI)	1	1
213	43A50007	Sensor - Heat Exchanger	1	1
214	43A50005	Sensor - Room Temp.	1	1
215	43A60001	Terminal 123	1	1
216	43A60002	Terminal ABC	1	1
217	43A60011	Terminal X,Y	1	1
218	43155138	MF Capacitor	1	
218	43155120	MF Capacitor		1
219	43097166	Washer	1	1
220	43A97002	Fan Washer	1	1
221	43A72008	Plug	1	1
222	43107215	Sensor Holder	1	1
223	43A88011	Owner's Manual	1	1
224	43A39008	Air Blocks	1	1
225	43A62004	E-Parts Covers	1	1

13. EXPLODED VIEWS AND PARTS LISTS

13.11 Outdoor Unit
RAV-134AH-PE
RAV-164AH-PE
RAV-264AH-PE
RAV-264AH8-PE



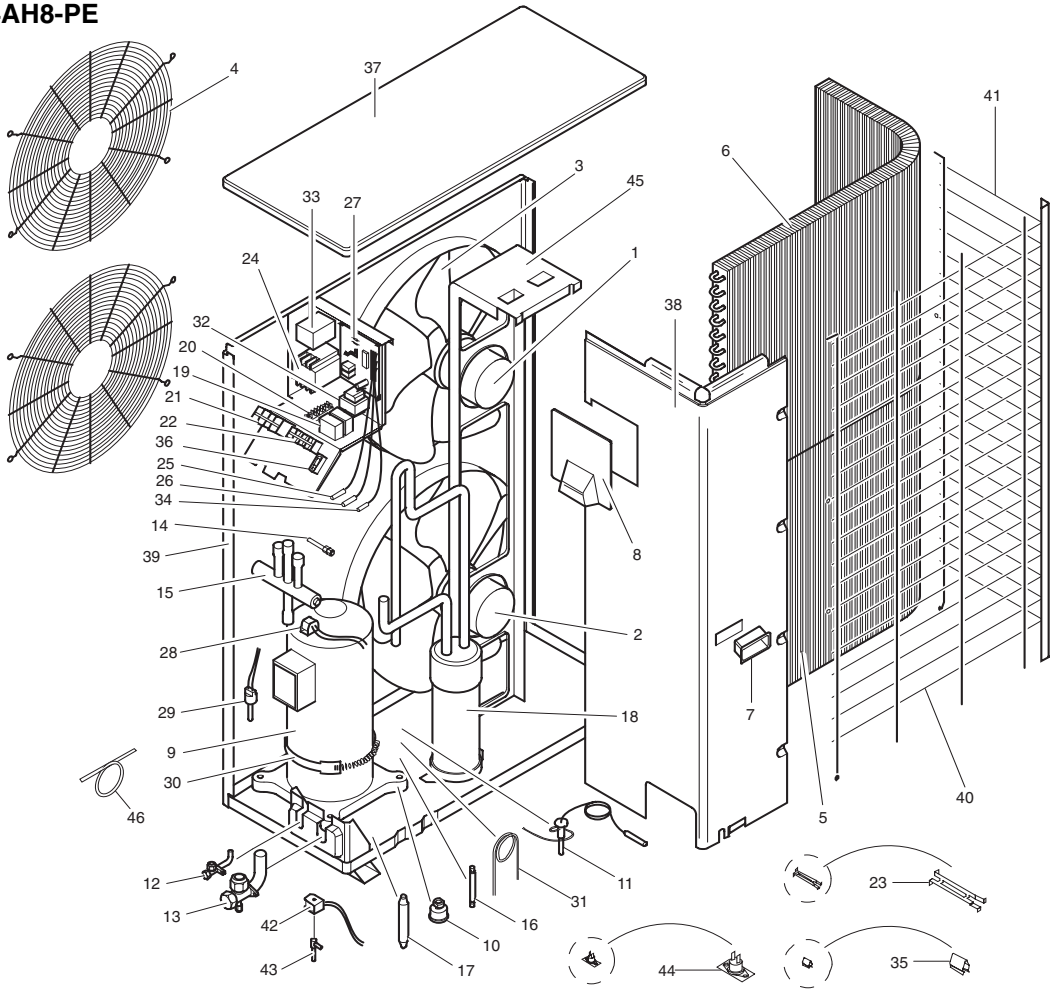
Ref No.	Part No.	Description	134AH	164AH	264AH	264AH8
1	43120156	Propeller Fan	1	1	1	1
2	43A21003	Fan Motor	1	1		
2	43A21002	Fan Motor			1	1
3	43A43016	Condenser	1	1		
3	43A43017	Condenser			1	1
4	43049132	Base Spring, B	3	3	3	3
5	43149212	Base Spring, A	3	3	3	3
6	43149198	Spring Buffer	3	3	3	3
7	43A69011	PC Board	1	1	1	1
8	43A49001	High Pressure Switch	1	1	1	1
9	43060479	Terminal Block, 4P	1	1	1	1
10	43A60003	Terminal Block, 2P	1	1		
10	43A60004	Terminal Block, 2P			1	
10	43A60005	Terminal Block, 4P				1
11	43A60001	Terminal Block, 4P	1	1	1	1
12	43152334	Magnetic Contactor	1	1	1	
12	43152345	Magnetic Contactor				1
13	43A19001	Fan Guard	1	1	1	1
14	43119368	Hanger	2	2	2	2
15	43A46004	Solenoid Coil	1	1	1	1
16	43162027	Cover, Electrical Parts	1	1	1	1
17	43107215	Sensor Holder	2	2	2	2
18	43A63001	Cord Clamp	1	1	1	1
19	43148105	Accumulator 2Ltr	1	1		
19	43148114	Accumulator 4Ltr			1	1
20	43A45004	Dryer	1	1	1	1
21	43155115	MF Capacitor – Compressor	1	1		
21	43055379	MF Capacitor – Compressor			1	
22	43155080	MF Capacitor – Fan	1	1	1	1
23	43A41506	Comp – PG330X3F-4LS	1			
23	43A41507	Comp – PG350X3F-4LS		1		
23	43A41508	Comp – PG460X3F-4MS			1	
23	43A41509	Comp – YG460X3F-MS				1

Ref No.	Part No.	Description	134AH	164AH	264AH	264AH8
24	43A46013	Packed Valve (6.35mm)	1	1		
24	43146415	Packed Valve (9.5mm)			1	1
25	43146406	Packed Valve (12.7mm)	1	1		
25	43146417	Packed Valve (15.9mm)			1	1
26	43A46015	Check joint	1	1	1	1
27	43A46014	Expansion Valve	1	1		
27	43A46017	Expansion Valve			1	1
28	43A46016	Coil, 2-Way Valve	1	1	1	1
29	43146283	Check Valve	1	1	1	1
30	43A58003	Transformer Power	1	1	1	1
31	43046151	2-Way Valve	1	1	1	1
32	43A50001	Sensor – Heat Exchanger (TL)	1	1	1	1
33	43150196	Sensor – Heat Exchanger (TE)	1	1	1	1
34	43193063	Spring	1	1	1	1
35	43157167	Heater, Crankcase	1	1	1	1
36	43150122	Thermostat, Bi-metal	1	1	1	1
37	43050277	Thermostat, Bi-metal (comp)				1
38	43A60006	Fuse T5A	1	1	1	1
39	43146418	4-Way Valve	1	1	1	1
40	43A47037	Capi Form	1	1		
40	43A47036	Capi Form			1	1
41	43A91016	ASM Roof Plate	1	1	1	1
42	43A91019	ASM Side Cabinet	1	1		
42	43A91022	ASM Side Cabinet			1	1
43	43A91017	ASM Air-Out Cabinet	1	1		
43	43A91018	ASM Air-Out Cabinet			1	1
44	43A91023	Fin-Guard	1	1		
44	43A91024	Fin-Guard			1	1
45	43154148	Reverse Phase Protector				1
45	43A54001	Reverse Phase Protector PCB				*
46	43A11006	Compressor Jacket	1	1		
46	43A11007	Compressor Jacket			1	1
47	43A22014	Fan Motor Support	1	1		
47	43A22012	Fan Motor Support			1	1

** Use Reverse Phase Protector PCB from Serial Number 101800001*

13. EXPLODED VIEWS AND PARTS LISTS

13.12 Outdoor Unit
RAV-364AH8-PE
RAV-364AH8-1-PE
RAV-464AH8-PE



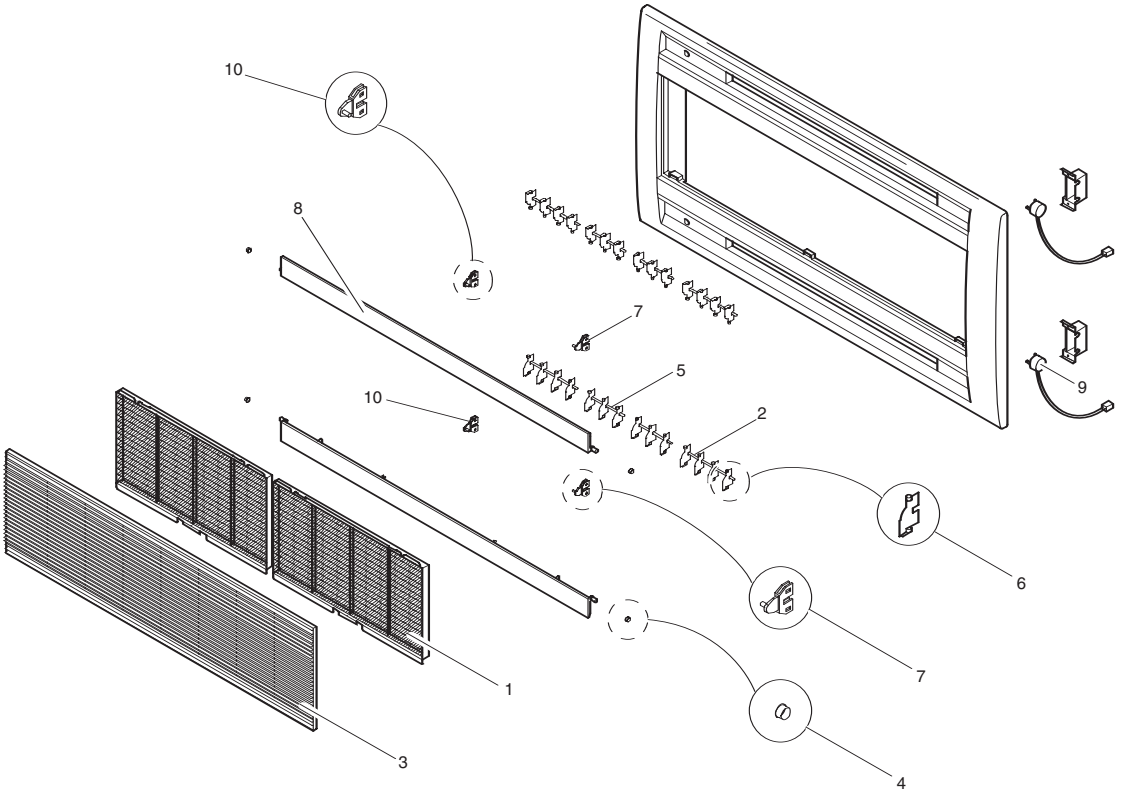
Ref No.	Part No.	Description	364AH8	364AH8-1	464AH8
1	43A21002	Fan Motor AC230V, 50Hz 63W	1	1	1
2	43A21003	Fan Motor AC230V, 50Hz 39W	1	1	1
3	43120156	Propeller Fan	2	2	2
4	43A19001	Fan Guard	2	2	2
5	43A43012	Condenser Lower			1
5	43A43014	Condenser Lower	1	1	
6	43A43013	Condenser Upper			1
6	43A43015	Condenser Upper	1		
6	43A43022	Condenser Upper		1	
7	43119368	Hanger, Plastic	3	3	3
8	43162027	Cover, Electrical Parts	1	1	1
9	43A41503	Compressor, ZR61KCE-TFD-★★★			1
9	43A41502	Compressor, ZR49KCE-TFD-★★★	1		
9	43A41514	Compressor, ZR48K3E-TFD- ★★★		1	
10	43A42001	Compressor Boot	4	4	4
11	43A46008	Expansion Valve, BGX-2330 3.65DPS			1
11	43A46009	Expansion Valve, BGX-2330 3.5DPS	1	1	
12	43146415	Packed Valve, (9.5mm)	1	1	1
13	43146416	Packed Valve, (19mm)	1	1	1
14	43147321	Check Joint	1	1	1
15	43146499	4-Way-Valve, CHV-0401			1
15	43146498	4-Way-Valve, CHV-0301	1	1	
16	43146283	Check Valve, YCV5-3S-TF	1	2	1
17	43A45001	Dryer, XH10			1
17	43A45002	Dryer, XH10	1	1	
18	43148114	Accumulator, 4Ltr		1	1
18	43148105	Accumulator, 2Ltr	1		
19	43155080	Capacitor, Plastic Film, 4.0μF, 400V	2	2	2
20	43060479	Terminal Block, 4P	1	1	1
21	43A60005	Terminal, 4P	1	1	1

Ref No.	Part No.	Description	364AH8	364AH8-1	464AH8
22	43A60001	Terminal, 4P	1	1	1
23	43107215	Sensor Holder	2	2	2
24	43A53004	Magnetic Contactor	1	1	1
25	43150196	Sensor, Heat Exchanger T_E	1	1	1
26	43A50001	Sensor (Cond Out), T_L	1	1	1
27	43A69011	PC Board, AH-803	1	1	
28	43A46004	Solenoid Coil, CHV-AC240V			1
29	43A49001	High Pressure Switch, ACB-2TB04W	1	1	1
30	43157167	Crankcase Heater, AC240V, 28W	1	1	1
31	43A47032	Capillary Assembly			1
31	43A47033	Capillary Assembly	1		
31	43A47049	Capillary Assembly		1	
32	43A58003	Power Transformer, FT67	1	1	1
33	43154148	Reverse Phase Protector, STR-4AD	1		1
33	43A54001	Reserve Phase Protector, PCB	*	1	*
34	43150261	Sensor (Delivery Pipe), T_D	1	1	1
35	43063219	Sensor Holder, T_D	1	1	1
36	43A60006	Fuse T5A	1	1	1
37	43A91027	ASM Roof Plate	1	1	1
38	43A91037	ASM Side Cabi			1
38	43A91029	ASM Side Cabi	1	1	
39	43A91028	Air Out Cabi	1	1	1
40	43A91036	Fin Guard – Back			1
40	43A91031	Fin Guard – Back	1	1	
41	43A91030	Fin Guard – Side	1	1	1
42	43A46046	Coil 2 Way Valve		1	
43	43046151	2 Way Valve		1	
44	43150122	Thermostat, Bimetal		1	
45	43A22013	Fan Motor Support	1	1	
45	43A22010	Fan Motor Support			1
46	43A55014	Bypass Capillary		1	

**Use Reverse Phase Protector PCB from Serial Number 101800001*

13. EXPLODED VIEWS AND PARTS LISTS

13.13 Ceiling Panel
RBC-U133PG(W)-PE
RBC-U134PG(W)-E

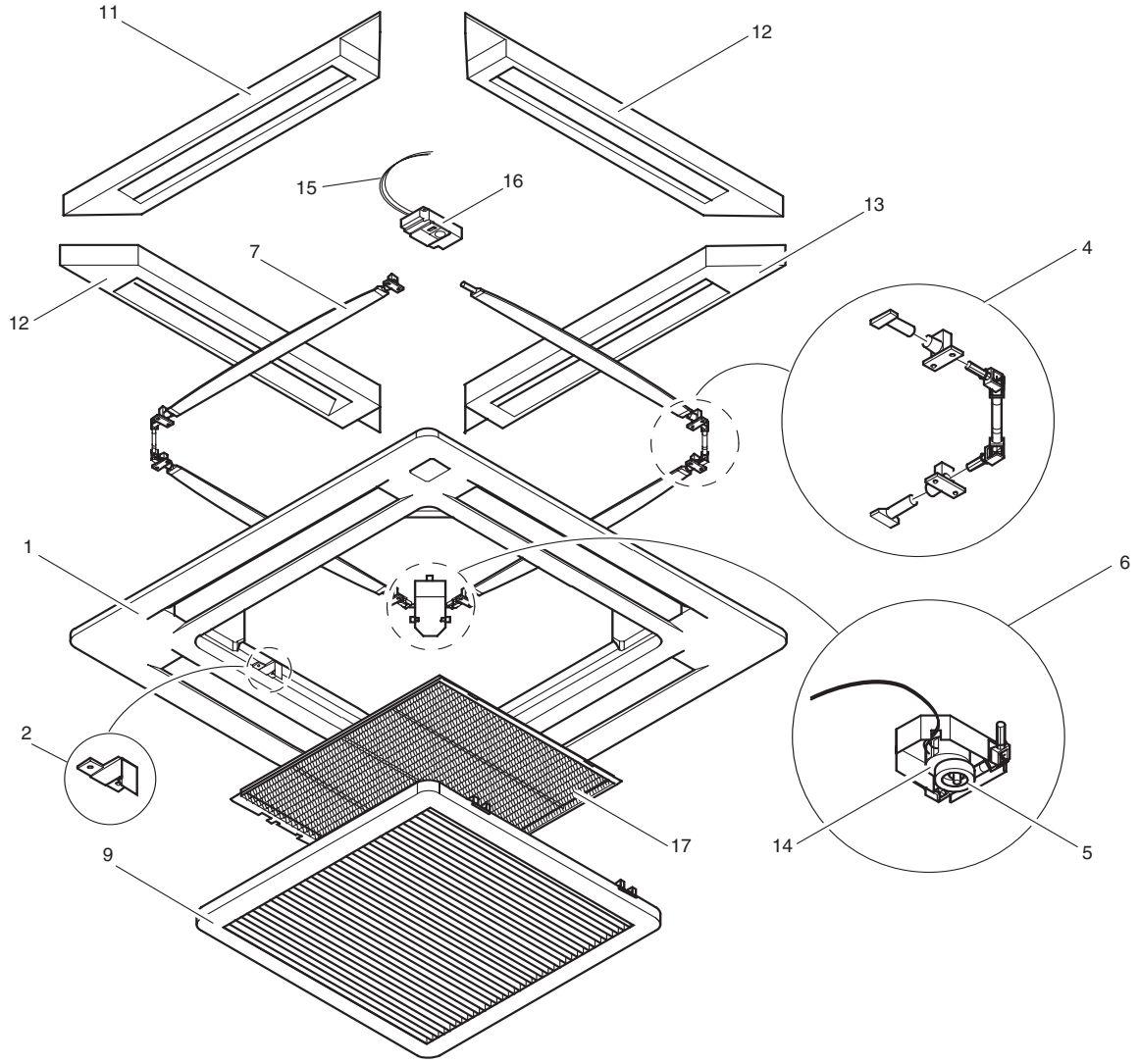


Ref No.	Part No.	Description	U133PG(W)	U134PG(W)
1	43080392	Filter	2	2
2	43007108	Plate connect (long)	4	4
3	43009504	ASM-Grille-Out	1	1
4	43007107	Bushing	4	4
5	43007109	Plate connect (short)	4	4

Ref No.	Part No.	Description	U133PG(W)	U134PG(W)
6	43009503	Grille-L-R	28	28
7	43007124	Support plate	2	2
8	43009499	ASM-Grille-Out	2	2
9	43A26001	ASM-Motor	2	2
10	43007125	Support plate	2	2

13. EXPLODED VIEWS AND PARTS LISTS

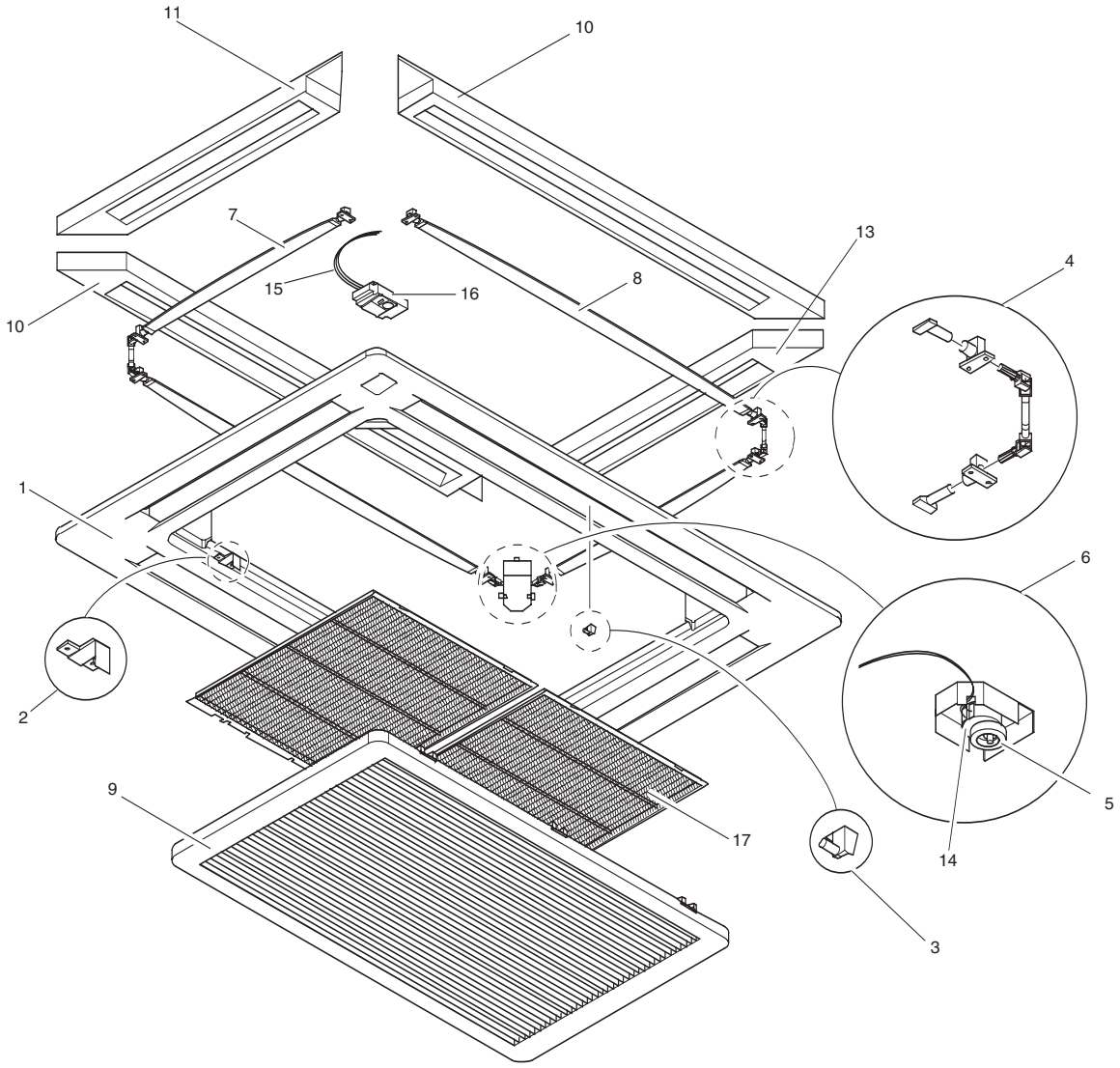
13.14 Ceiling Panel
RBC-U264PG(W)-E
RBC-U264PGR(W)-E



Ref No.	Part No.	Description	U264PG(w)	U264PGR(w)
1	43400658	Panel	1	
1	43400001	Panel (Remote)		1
2	43407072	Grille Catch	2	2
4	43407085	Joint Kit	2	2
5	43407091	Cam	1	1
6	43107249	Motor Kit Assembly	1	1
7	43409110	Louver-(Small)	4	4
9	43A09009	Grille – Air Inlet	1	1
11	43411007	Cushion Air Outlet B	1	1
12	43411008	Cushion Air Outlet C	1	1
13	43411009	Cushion Air Outlet D	1	1
14	43121671	Geared Motor	1	1
15	43460532	Cord, Remote Controller		1
16	43A69012	Infra-Red Receiver - (AI)		1
17	43480545	Air Filter	1	1

13. EXPLODED VIEWS AND PARTS LISTS

13.15 Ceiling Panel
RBC-U464PG(W)-E
RBC-U464PGR(W)-E



Ref No.	Part No.	Description	U464PG(W)	U464PGR(W)
1	43400662	Panel	1	
1	43400003	Panel (Remote)		1
2	43407072	Grille Catch	2	2
3	43407076	Grille, Louvre M	2	2
4	43407085	Joint Kit	2	2
5	43402091	Cam	1	1
6	43107249	Motor Kit Assembly	1	1
7	43409110	Louver – (Small)	2	2
8	43409114	Louver – (Large)	2	2
9	43A09010	Grille Air Inlet	1	1
10	43411006	Cushion Air Outlet A	2	2
11	43411007	Cushion Air Outlet B	1	1
13	43411009	Cushion Air Outlet D	1	1
14	43121671	Geared Motor	1	1
15	43460532	Cord, Remote Controller		1
16	43A69012	Infra Red Receiver		1
17	43480546	Air Filter	2	2

Heronhill - for all your Toshiba requirements

TOSHIBA

AIR CONDITIONING

PORSHAM CLOSE, BELLIVER INDUSTRIAL ESTATE, PLYMOUTH PL6 7DB UK

A division of Toshiba Carrier UK Ltd

Tel: 01823 665660 www.heronhill.co.uk Fax: 01823 665807